Annual Report on Indicators of Success for 2007-08
Department and College Reports

STUDENT SUCCESS INDICATORS

NAME of Department: Geology

NAME of College: College of Science

Overview of Department

Budget implications, general education and service courses, unique regional or statewide programs, etc
(Maximum characters allowed: 1500)

Department Overview:

The Geological Sciences Department consists of seven tenured or tenure-stream faculty: four Professors, one Associate Professor and one tenure-track Assistant Professor. The remaining position is a vacant Assistant Professor position. The Department Chair receives 0.4 re-assigned time such that theDepartment has a regular faculty compliment of 6.6 FTEF (including the vacant position). The Department offers its core majors two undergraduate degree programs (Geology and Integrated Earth Studies) and teaches a broad spectrum of general education and service courses in the Earth sciences. The Department is well known for producing high-quality graduates with practical skills useful for employment in natural hazards asessment, reource exploration and management, and geotechnical or groundwater industries. In response to recent CSU focus on water issues and to prepare students for employment in current growth industries and government agencies, the Department has requested permission to conduct two tenure-track Assistant Professor level faculty searches during 2008-09 in areas of Hydrogeology / Engineering Geology and Sedimentary Processes / Earth System Science.

Fall quarter FTES have grown 50% since 2004, from 121 FTES to 182 FTES. Numerical data for the past two years document that Geology has been teaching well in excess of its tenure track capacity. Relative to 06 – 07 FTES are up by 10%, SFR is larger, while the proportion of WTUs taught by part time instructors has declined from 34% to 28%. Tenure stream faculty are bearing the brunt of the higher targets and higher demand for GSC courses. This compounds the ever greater expectations for faculty research, grant success, and faculty mentored involvement in faculty-directed research. There is clear numerical justification to search for two tenure track faculty members in 2008-09.

The Geological Sciences Department and the Civil Engineering Department have established cooperative and collaborative ties. The proposed new Hydrogeology / Engineering Geology position fosters stronger connections with the College of Engineering and opens the door for future course offerings on related topics. More specifically, the Geological Sciences Department is responsible for teaching Engineering Geology I (GSC 321/321L), required for all Civil Engineering majors and all Geology and Integrated Earth Studies majors. The Department of Civil Engineering has recently asked the Geological Sciences faculty to collaborate with course offerings for its Master's degree in Geotechnical Engineering. In response, two Geology faculty will be team-teaching Engineering Geology II (GSC 415/415L) during Fall quarter of 2008. The course is offered to senior and masters level CE students and senior level Geology majors. Development of this course is ongoing.

The recent skyrocketing of oil and commodity prices has led to a strong demand for geosciences graduates. William Fisher, Dean of the University of Texas, School of Geosciences estimates that demand is roughly twice the supply. Starting salaries are up dramatically from the previous year and even interns are being recruited with signing bonuses. It is anticipated the demand and growth cycle for geoscientists will continue into the foreseeable future as financially healthy, but resource-poor Asian countries drive the world economic market. Past experience with supply and demand in the geosciences profession suggests that growth in college enrollments always lags behind the economic cycle by several years. Thus, it can be anticipated that the moderate enrollment growth we are currently experiencing will accelerate over the next five to ten years. The Department will need faculty with abilities to apply their research to petroleum, groundwater and mineral exploration. Sedimentary Geology, Field Geology, Hydrogeology and Engineering Geology are central to such professions.

Coverage of Sedimentary Processes and Field Geology is baseline essential to an undergraduate Geology program. With the vacant sedimentary geology position, the Department lacks a field-oriented person focused in this discipline. Yet, routinely, our graduates working in the geotechnical and groundwater industries work almost exclusively with sediments or sedimentary rocks. Training in sedimentary geology is expected for entry into graduate programs. Employers and alumni who visit the Geology Department routinely laud our emphasis on teaching field skills. Similarly, solid expertise in the engineering / hydrogeology aspects of the profession will strengthen and potentially broaden the job horizon for our graduates.

Department Accomplishments and Highlights of 2007-08:

1. A faculty member was hired with specialty in seismology / geophysics. This new added dimension to the Program has proved successful. Three new courses have been proposed. One of these courses will be co-listed with the Department of Physics. The two new courses taught thus far have attracted students from Engineering, Physics and the Geological Sciences. A seismology-related senior thesis was completed. Two United States Geological Survey seismology-related grants to monitor and study real-time events are extant (see below).

2. The GSC Department submitted a proposal to establish a Masters Degree in Geology. Thus far, the proposal received unanimous support from the Dean and Curriculum Committee of the College of Science. The proposal was reviewed by Academic Affairs and is now pending before the Academic Senate.

3. A College of Science Quality Learning Fund Grant was awarded to Dr. Marshall for an International Field Studies course in Costa Rica, taught by Drs. Marshall and Nourse. The course is noteworthy because it attracted a multi-disciplinary student body and added international experience to the course members.

4. Faculty mentored student research has resulted in thirteen publications and conference presentations in which students were authors or coauthors

5. The Geology Department recently submitted a proposal for digital field mapping equipment in collaboration with other faculty from College of Science and Engineering.

6. Geology undergraduates are actively engaged in faculty mentored research. Seven students were coauthors on professional conferencepresentations during 2007-08. More than half of the 2008 Geology graduates are will be attending graduate school next year.

7. The Department was successful in its application for membership in the Southern California Earthquake Center (SCEC).

8. During winter quarter, Dr. John Clague, the Geological Society of America 2007-08 Jahn's Distinguished Lecturer, gave a talk to the campus community in the Bronco Student Center on

tsumani and their impact on the coasts of the U. S.

Status of First Year Experience Program

A narrative description that describes the status of First year Experience Program
Maximum characters allowed: 1000)

Two Geology faculty were contributing members of the curriculum design committee for the First Year Experience course in the College of Science.

Status of Assessment of Advising

A narrative description that includes identifying the status of the program: development, adoption, implementation, analysis, or feedback;
If at feedback stage, then describe changes in proactive that have been made
(Maximum characters allowed: 1000)

Geological Sciences' Five Year Assessment Plan has been underway for two years. The document is currently in the Office of Undergraduate Studies pending transmittal to the Academic Senate. One component of the assessment plan is student advising. All geoscience students have advising holds placed every quarter. All geoscience majors must discuss their academic plan and academic progress with a GSC faculty advisor prior to quarterly preregistration. This process has facilitated student curricular planning, improved student graduation rate and streamlined time to graduation. In other areas of assessment, Geology faculty have linked course learning outcomes to Learning Objectives outlined in the Assessment Plan. Geology faculty are collecting data for analysis as outlined in the Five Year Plan. Faculty are meeting and discussing common norms for assessing learning outcome objectives. Rubrics are in place to assess senior theses. An exit survey has been updated and utilized spring 2008.

Academic Standing: At-Risk Students

See Performance Measure Chart
(Maximum characters allowed: 1000)

All geoscience students have advising holds placed every quarter. Each geoscience majors must discuss his/her academic plan and academic progress with a faculty advisor prior to quarterly registering. At risk students are advised regarding course strategies designed to progress through the major as well as improve their GPA. Students are referred to the College of Science Advising Center for additional GPA-related strategies. Students and faculty are becoming familiar with the GPA calculator and the use of repeating / replacing courses.
The spring quarter '08 Active Student Report identifies two geoscience students out of a total of 38 that have GPA's below 2.0. Both are disqualified. A reinstatement and grade point balance improvement plan has been developed for one of the two students. Academic and personal issues have been discussed and there is a mutual understanding regarding their academic future.

Other Student Achievement

This is a narrative describing students in special programs (McNair, Honors, etc.) and student participation in special conferences of other external recognition
(Maximum characters allowed: 1500

1. Honors Program:
Julie Brown graduated from this program in June of '08. She will go on to graduate school with a specialty in geochemistry.
2. Student-authored abstracts presented at professional conferences:
--Baltzer, Suzanne, M., 2008, Landslide damage within Big Santa Anita Canyon, Los Angeles, CA, Geol. Society of America, Cordilleran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.
--Brown, Julie M., Bruns, Jessica J., and Jessey, David R., 2008, Petrochemical trends of Neogene basaltic volcanism in the southern Owens Valley, CA, Geol. Society of America, Cordilleran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.
--Lusk, Matthew W., and Jessey, D. R., 2007, Cenozoic volcanism on the Darwin Plateau, Southern California Academy of Sciences, Abstracts with Programs, Fullerton, CA. vol 106; #2, pp. 54A.
--Lusk, Matthew W. and Jessey, David R., 2007, Geochemical and petrographic analyses of the basalts of the Darwin Plateau, Inyo County, CA, Geological Society of America, Rocky Mountains Section, Abstracts with Programs, vol. 39, #5, pp. 42.
--Ruotolo, A.M., Ellis, R.A., and Marshall, J.S., 2008, Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain Foothills, eastern, Los Angeles County, California: Geological Society of America, Abstracts with Programs, v. 40, no. 1, Abs. 16-1, p. 64.
3. Student Scholarship Recipients, May, 2008:
--Brian Oliver: $3000 Grace Teal memorial Scholarship
--Kimberly Poste: $3000 Grace Teal memorial Scholarship
--Julie Brown: $1000 Henderson-Valles academic scholarship
--Rob Ellis: $1000 Ernest Prete scholarship
--Kayla Kroll: $750 Margaret Van Buskirk Memorial Scholarship
--Julie Brown: $300 Brent Norum Brunton Compass Award

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UNDERGRADUATE PROGRAMS & LEARNING OUTCOMES

NAME of Department: Geology

NAME of College: College of Science

A description that included identifying the specific outcome; place addressed in the curriculum; assessment procedures; methods and strategies; summary of findings; and use of findings for program improvement.

Learning Outcome Assessment Website: http://www.class.csupomona.edu/ga/students/academic-plans.html

Column 1	Column 2	Column 3	Column 4	Column 5
Student Learning Outcome	**Place in Curriculum where Outcome is Addressed**	**Assessment Procedures, Methods, Strategies**	**Summary of Findings**	**Use of Findings for Program Improvement**
List any outcomes that were revised, assessed, had results of assessment analyzed or caused some action. (Maximum characters allowed: 200)	Indicate course or step in program the outcome is addressed. Include level it is addressed: introduction, development, mastery. (Maximum characters allowed: 200)	List assessment activity or indirect procedure or strategy. (Maximum characters allowed: 200)	Include findings on what students are doing well as well as those that suggest an adjustment or improvement. (Maximum characters allowed: 200)	Did faculty discuss findings, make suggestions for change, carry out change? (Maximum characters allowed: 200)
Learning outcomes have been identified for each geoscience course. Course syllabi for GSC courses now contain learning outcomes. A revised student course evaluation form was instituted spring quarter '08 which asks about how well the course met learning outcomes. Modification of the GSC curriculum and associated learning outcomes is ongoing as results of Department assessment activities are compiled and discussed by faculty.	A matrix linking Learning Outcomes to Department Learning Objectives has been completed for most GSC courses but cannot be entered here due to formatting constraints. Please request a copy from GSC Department Assessment Coordinator	The intent of the assessment activities listed below is to evaluate three fundamental questions. All Geological Sciences faculty have been involved in these activities since the Assessment Plan was drafted in 2006. The quantitative and qualitative feedback yielded shall be incorporated into the next 5-Year Program Review of Geological Sciences Department during 2011-2012.	1. Surveys of alumni and prospective employers are complete. These surveys and ongoing informal discussions with alumni provide valuable and constructive feedback on the relative strengths of our instructional curriculum and which skills or sub-disciplines the Department should emphasize to capitalize on future growth areas. Findings have resulted in new initiatives described in Column 5.	Faculty meet regularly to discuss feedback from various assessment indicators. Tangible outcomes of these discussions include:

	A matrix linking Learning Outcomes to Department Learning Objectives has been completed for most GSC courses but cannot be entered here due to formatting constraints. Please request a copy from GSC Department Assessment Coordinator	Assessment Question #1: Does the current course curriculum address the Learning Objectives and Goals of the Department in sufficient breadth and depth? Activity 1A. Analyze the current expanded course outline for each course and draw connections between course content (or educational outcomes) and specific Department Learning Objectives. Activity 1B. Fill in matrices for the Geology and Integrated Earth Studies curricula, indicating the degree that each Department Learning Objective is addressed in specific courses. Assessment Question #2 How effectively do the Department courses accomplish the Learning Objectives? Quantitative Course Assessment Tools: Activity 2A. Monitor student performance on exam questions linked to specific Department Learning Objectives. Activity 2B. Track grades on homework assignments, laboratory exercises, term projects, and research papers that relate to Department Learning Objectives. Activity 2C. Use rubrics to evaluate oral and written Senior Thesis presentations (the capstone experience for Geology majors). Activity 2D. Conduct "Pre Test-Post Test" analyses of course components related	2. GSC faculty continue to monitor student learning in their courses, and make adjustments accordingly. 3. A senior thesis rubric is used to evaluate each student thesis presentation. Faculty advisors and students learn much from this process, and the student audiences gain insight into the challenges and rewards of completing a significant research project. 4. More than half of the graduating class of 2008 is attending graduate school, indicating that the GSC program prepares its students well and is achieving national academic standards	1. Design of a gradute proposal, now pending before Academic Senate 2. Design of two new coursess in Geophysics, and new courses in Advanced Engineering Geology and Mathematic Applications for Earth Scientists 3. Development of a plan for a three-option curriculum in the Geology major 4. Revision of exit interview for graduating majors. 5. Development of new strategies to make the senior thesis process more efficient 6. Specific changes in pedagogy and instructional emphasis in several GSC courese, including GSC 116, GSC 120, GSC 320, GSC 304, GSC 333, GSC 360

		Department Learning Objectives. Activity 2E. Track student responses to course evaluation question(s) related to learning achievement. Qualitative Course Assessment Tools: Activity 2F. Supervise and mentor students on various stages of term paper presentation and senior thesis research and writing. Activity 2G. Supervise and evaluate student presentations at professional meetings. Activity 2H. Compile representative portfolios of student work for that exceed expectations, meet expectations, or are below expectations. Activity 2I. Conduct mid-term teaching evaluations. Activity 2J. Advise students each quarter to monitor progress toward degree and devise efficient curriculum plan. Activity 2K. Conduct exit interviews of all graduating majors. Assessment Question #3 Do the Department's Goals and Learning Objectives address the current needs, trends, and opportunities in the Geoscience profession? Alumni-Faculty Interactions Activity 3A. Update alumni data base to track areas of employment or graduate school placement for Geology and Integrated Earth Studies graduates. Activity 3B. Utilize alumni newsletter ("The Mylonite") to keep alumni informed of		

		Department activities and to publicize alumni news to students and faculty. Activity 3C. Design an alumni questionnaire to identify important areas of focus for Department Learning Objectives, student training, and future hiring. Is the Department preparing students appropriately for careers in industry, academia, government, or education? Activity 3D. Meet periodically with alumni and other geoscience professionals from industry and academia. Discuss relative importance of Department Learning Objectives for meeting current needs of the profession. Alumni-Student-Faculty Interactions Activity 3E. Geology Club speaker series: Invite alumni or other geoscience professionals to present talks related to their industry work or academic research. Activity 3F. Organize Career Symposia with alumni presenters to appraise students and faculty of career opportunities for geoscientists and necessary preparation. What entry-level skills and knowledge are crucial for success in the geologic profession? Faculty-Student-Interactions with Industry and Academia Activity 3G. Promote and track student internships with local geotechnical companies or government agencies, using faculty as go-between. Activity 3H. Pursue research opportunities and funding for students as a means of staying current in the		

		geoscience profession. Activity 3I. Encourage student participation in local or national research conferences to promote interactions with faculty and students from other universities.		

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GRADUATE PROGRAMS & LEARNING OUTCOMES

NAME of Department: Geology

NAME of College: College of Science

A description that includes identifying the specific outcomes; place addressed in the curriculum; assessment procedures; methods and strategies; summary of findings; and use of findings for program improvement.

Learning Outcomes Assessment Website:

Column 1	Column 2	Column 3	Column 4	Column 5
Student Learning Outcome	**Place in Curriculum where Outcome is Addressed**	**Assessment Procedures, Methods, Strategies**	**Summary of Findings**	**Use of Findings for Program Improvement**
List any outcomes that were revised, assessed, had results of assessment analyzed, or caused some action. (Maximum characters allowed: 200)	Indicate course or step in program this outcome is addressed. Include level it is addressed: introduction, development, mastery. (Maximum characters allowed: 200)	List assessment activity, direct or indirect procedure or strategy. (Maximum characters allowed: 200)	Include findings on what students are doing well as well as those that suggest an adjustment or improvement. (Maximum characters allowed: 200)	Did faculty discuss findings, make suggestions for change, carry out change? (Maximum characters allowed: 200)
Geological Sciences has no extant graduate program. A graduate proposal is now pending before the Academic Senate				

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Department and College Reports

FACULTY and STAFF DEVELOPMENT INDICATORS
Publications & Creative Activities (Peer Reviewed)

NAME of Department: Geology

NAME of College: College of Science

Faculty/Staff Development Indicators: Publications & Creative Activities (Peer Reviewed)
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Jessey	David R.	Jessey, David R. and Reynolds, Robert E., 2007, Major and trace element geochemistry of the Neogene Halloran Hills andesites, San Bernardino County, California: Implications to tectonic evolution of the eastern Mojave, California Desert Studies Center Symposium Volume and Guidebook. Zzyzx, CA, 8 p.
Polet	Jascha	Polet, J. and H. Kanamori, "Tsunami Earthquakes", invited contribution to the “Encyclopedia of Complexity and Systems Science”, Editor: W. Lee, accepted to be published by Springer, 2009, 27 pages.

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FACULTY and STAFF DEVELOPMENT INDICATORS
Publications & Creative Activities (Non- Peer Reviewed)

NAME of Department: Geology

NAME of College: College of Science

Faculty/Staff Development Indicators: Publications & Creative Activities (Non- Peer Reviewed)
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Marshall	Jeffrey S.	Montero, W., Marshall, J., Kruse, S., Wetmore, P., and Lewis, J., 2008 (submitted 11/07), Neotectonic faulting and fore arc sliver motion along the Atirro-Río Sucio fault system, Costa Rica, Central America: Geological Society of America Bulletin.
Marshall	Jeffrey S.	Sak, P.B., Fisher, D.M., Gardner, T.W., Marshall, J.S., and Lafemina, P., 2008 (revised version submitted 12/07), Relationship among rough crust subduction, fore arc kinematics, and Quaternary uplift rates, Costa Rican segment of the Middle American Trench: Geological Society of America Bulletin.
Marshall	Jeffrey S.	Gardner, T., Webb, J., Pezzia, C., *Amborn, T., Tunnell, R., Flanagan, S., Kapostasy, D., Merritts, D., Marshall, J., Fabel, D., Cupper, M., 2008 (submitted 2/08), Deformation of Late Neogene and Quaternary Marine Terraces, Cape Liptrap, southeastern Australia: Quaternary Science Reviews.
Nourse	Jonathan A.	Nourse, Jonathan A. and Stubbe, Paul, 2008, Summary of structure and mineralization at La Variedad, La Bellota, and Las Amarillas prospects, Leon Property, central Sonora, Mexico, technical report submitted to Colibri Resource Corp., 10 pages plus illustrations.
Polet	Jascha	Attended UNESCO workshop on “Tsunami Risk Assessment” in Dubai, Oct 4th-6th 2007.

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FACULTY and STAFF DEVELOPMENT INDICATORS
Professional Conference Presentations

NAME of Department: Geology

NAME of College: College of Science
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Faculty/Staff Development Indicators: Professional Conference Presentations
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Berry	David R.	Reynolds, R. E., Berry, David, R., 2008, Preliminary review of fossil localities from the Bouse Formation, Blythe Basin, California, in Trough to Trough, the Colorado River and the Salton Sea, Desert Symposium Field Guide and Proceedings, Robert E. Reynolds editor, April 2008.
Jessey	David R.	Brown, Julie, M., Bruns, Jessica J., and Jessey, David R., 2008, Petrochemical trends of Neogene basaltic volcanism in the southern Owens Valley, CA, Geol. Society of America, Cordilleran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.
Jessey	David R.	Jessey, David R., Reynolds, Robert E., Michalka, Leianna L. and Baltzer, Suzanne M., 2007, Tectonic implications of late Cenozoic volcanism in the eastern Mojave Desert, Geological Society of America, Rocky Mountains Section, Abstracts with Programs, vol. 39, #5, pp. 36.
Jessey	David R.	Lusk, Matthew W., and Jessey, D. R., 2007, Cenozoic volcanism on the Darwin Plateau, Southern California Academy of Sciences, Abstracts with Programs, Fullerton, CA. vol 106; #2, pp. 54A.
Jessey	David R.	Lusk, Matthew W. and Jessey, David R., 2007, Geochemical and petrographic analyses of the basalts of the Darwin Plateau, Inyo County, CA, Geological Society of America, Rocky Mountains Section, Abstracts with Programs, vol. 39, #5, pp. 42.
Marshall	Jeffrey S.	Marshall, J.S., *LaFromboise, E.J., *Utick, J.D., *Khaw, F., *Morrish, S.C., *Piestrzeniewicz, P., *Gilbert, R.C., Gardner, T.W., and Protti, J.M., 2008, Tectonic geomorphology and forearc deformation along the Nicoya Peninsula seismic gap, Costa Rica: Resumenes del IX Congreso Geológico de América Central, San José, Costa Rica, 2008.
Marshall	Jeffrey S.	López, A., Marshall, J.S., Chinchilla, A.L., Sak, P.B., Chiesa, S., Alvarado, G.E., Gazel, E., 2008, Stress field map of Costa Rica: The Sigma Project: Resumenes del IX Congreso Geológico de América Central, San José, Costa Rica, 2008.
Marshall	Jeffrey S.	*Ruotolo, A.M., *Ellis, R.A., and Marshall, J.S., 2008, Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain Foothills, eastern, Los Angeles County, California: Geological Society of America, Abstracts with Programs, v. 40, no. 1, Abs. 16-1, p. 64.

Marshall	Jeffrey S.	Marshall, J.S., *LaFromboise, E.J., Gardner, T.W., and Protti, M., 2007, Segmented fore arc deformation along the Nicoya Peninsula seismic gap, Costa Rica: Eos, Transactions, American Geophysical Union, v. 88, Fall Meeting Supplement, Abs T53A-1121, 2007.
Marshall	Jeffrey S.	Marshall, J.S., 2007, Riding the waves of San Andreas: Geologic and engineering aspects of the 17 October 1989 Loma Prieta Earthquake, Santa Cruz, California: Association of Environmental and Engineering Geologists, Inland Empire Chapter Newsletter, v. 3, no. 10, October 2007.
Marshall	Jeffrey S.	Gardner, T., Pezzia, C., *Amborn, T., Tunnell, R., Flanagan, S., Merritts, D., Marshall, J., Webb, J., Fabel, D., and Cupper, M.L. 2007, Deformation of late Neogene and Quaternary marine terraces, Cape Liptrap, southeastern Victoria, Australia: XVII INQUA Congress Abstracts, Quaternary International, v. 167/168, p. 132.
Marshall	Jeffrey S.	Marshall, J.S., *LaFromboise, E.J., Gardner, T.W., and Protti, M., 2007, Upper plate faulting and uplift along the Nicoya Peninsula seismic gap, northern Costa Rica fore arc: NSF MARGINS Program, Central America Seismogenic Zone and Subduction Factory Focus-Site Workshop, Heredia, Costa Rica, 2007.
Nourse	Jonathan A.	Nourse, Jonathan A., Irwin, J.J., and Stubbe, P., 2008, The Leon Property: geologic and structural setting of molybdenum-copper-silver-gold mineralization in detached roots of the El Creston mineral deposit, north-central Sonora, abstract submitted to the 1st Congreso sobre la Evolución Geológica y Ecológica del Noroeste de México, Hermosillo, Sonora, México, del 21 al 23 de Abril del 2008
Nourse	Jonathan A.	Jacobson, C.E., Pedrick, J. E., Barth, A., Gehrels, G. E., Nourse, J. A., 2008, Implications of the Pelona-Orocopia-Rand schists for evolution of the Nacimiento fault, California, Geological Society of America Abstracts with programs, v. 40 , n.1 , p.
Nourse	Jonathan A.	Nourse, Jonathan A., Oskin, M. E., Iriondo, A, and Premo, W. R., 2007, Laramide fold-thrust belt overprinted by Middle Miocene detachment faults, Caborca region, Sonora, Mexico, Abstract in Ores and Orogenesis: A Symposium Honoring the Career of William R. Dickinson, Arizona Geological Society, Tucson, AZ, p. 96-97.
Nourse	Jonathan A.	Premo, Wayne. R., Nourse, Jonathan A., Castineiras, Pedro, and Kellogg, Karl, 2007, New SHRIMP-RG U-Pb zircon ages and Sm-Nd analyses of Proterozoic metamorphic rocks of the San Gabriel basement terrane: Keys for Laurentian crustal reconstruction?, Abstract in Ores and Orogenesis: A Symposium Honoring the Career of William R. Dickinson, Arizona Geological Society, Tucson, AZ, p. 150-151.
Polet	Jascha	Polet, J. and H.K. Thio, “The January 13, 2007, Kuril Islands Outer Rise Earthquake”, Eos Trans. American Geophysical Union, 88(52), 2007 Fall Meet. Suppl., Abstract T32B-1420.

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FACULTY and STAFF DEVELOPMENT INDICATORS
Non-WTU Teaching Activity

NAME of Department: Geology

NAME of College: College of Science

Faculty/Staff Development Indicators: Non-WTU Teaching Activity
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Berry	David R.	Course-related field trip in excess of assigned WTUs: May, 2008: Invertebrate Paleontology, GSC 331/331L – Eastern Mojave and SW Nevada
Berry	David R.	Course-related field trip in excess of assigned WTUs: May, 2008: GSC 350 Natural Disasters--San Gabriel Mountains
Jessey	David R.	Design and drafting of Graduate Proposal for Geological Sciences Department, Summer, 2007
Jessey	David R.	Course-related field trip in excess of assigned WTUs: Fall 2007: Mineralogy, GSC 215 - Searles Lake
Jessey	David R.	Course-related field trip in excess of assigned WTUs: Winter 2008: Geochemistry, GSC 300 - Central Mojave and Death Valley
Jessey	David R.	Course-related field trip in excess of assigned WTUs: Spring 2008: Igneous & Metamorphic Petrology, GSC 424 - Owens Valley/Long Valley Caldera
Jessey	David R.	Senior thesis supervision in excess of assigned WTUs: Brown, Julie M., 2008, Petrology and geochemistry of Jurassic metasedimentary and metavolcanic rocks of the Alabama Hills and southern Inyo Mountains, near Lone Pine, CA, Senior Thesis, 35 pp.
Jessey	David R.	Senior thesis supervision in excess of assigned WTUs: Lusk, Matthew, 2007, Geochemical and petrographic analysis of the basalts of the Darwin Plateau, Inyo County, CA: Senior Thesis, 42 pp.
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Eli LaFromboise, ongoing, M.S. Thesis, CSU Northridge Geology Department, "Geomorphology and seismotectonics of the Río Morote Valley, Península de Nicoya, Costa Rica"
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Allison Ruotolo, 2008,Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain foothills, eastern Los Angeles County, California"
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Rob Ellis, ongoing, Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Range front faulting and uplifted alluvial gravel deposits between San Gabriel and San Antonio Canyons, San Gabriel Mountains, California"

Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Peter Piestrzeniewicz, ongoing, Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Tectonic geomorphology and digital terrain analysis using ArcGIS: Nicoya Peninsula, Costa Rica"
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Shawn Morrish, ongoing, Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Tectonic geomorphology of late Pleistocene fluvial and marine terraces, central Nicoya Peninsula, Costa Rica "
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Reynicole Gilbert, ongoing, Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Stream length-gradient indices as an indicator of tectonic uplift, Nicoya Peninsula, Costa Rica "
Marshall	Jeffrey S.	Senior thesis supervision in excess of assigned WTUs: Ethan McIntyre, 2007, Senior Thesis, Cal Poly Pomona Geological Sciences Department, “Water Quality Analysis of the North Palisade Glacier, Sierra Nevada Mountains, California”
Marshall	Jeffrey S.	Faculty mentored field research: San Gabriel Mountain Foothills, 2007-2008 (throughout year), with Cal Poly Pomona senior thesis students Allison Ruotolo and Rob Ellis, and students of my Geomorphology (GSC 323/323L) and Field Module (GSC 491L) courses, "Field mapping, surveying, and sampling of uplifted Quaternary alluvial fan remnants along the frontal thrust faults of the San Gabriel Mountain Foothills (San Dimas, La Verne, Claremont, Upland), Los Angeles County, CA".
Marshall	Jeffrey S.	Faculty mentored field research: Costa Rica, Central America, July 1-7, 2007, with E. LaFromboise (CSU Northridge graduate student), and J. Utick (Cal Poly Pomona undergraduate), "Field mapping, surveying, and sampling of uplifted marine and alluvial terraces, Río Morote and Playa Carrillo, Península de Nicoya, Costa Rica".
Marshall	Jeffrey S.	Faculty mentored field research: Costa Rica, Central America, March 23-31, 2008, with J. Nourse (Cal Poly Pomona faculty), E. LaFromboise (CSU Northridge graduate student), and 14 Cal Poly Pomona undergraduate students of the GSC 491L Costa Rica Tectonics Field Module, "Geologic and geomorphic field mapping, Poás Volcano and Nicoya Peninsula, Costa Rica".
Nourse	Jonathan A.	New course design: Engineering Geology II, GSC 415/415L (3/1).
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 350 Natural Diasaters—San Gabriel Mountains, July 30, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs:GSC 444 Geotectonics—San Gabriel Mountains, August 3-5, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs:GSC 444 Geotectonics —Malibu Coast-Central Coast, August 17-19, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 333 Structural Geology—Rand Mountains, November 1-3, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 333 Structural Geology—Anza Borrego State Park, November 15-17, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs:GSC 491L Field Module—Orocopia Mtns; Andrade Quarry, December 9-13, 2007
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 499L Field Module – Costa Rica Tectonics, March 23-31,2008
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 360 Groundwater Geology—Icehouse Canyon, January 12, 2008
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 360 Groundwater Geology—Upper San Antonio Canyon, February 2, 2008

Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 311 GIS Applications-- Icehouse Canyon, April 25, 2008
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 311 GIS Applications-- Icehouse Canyon, May 2, 2008
Nourse	Jonathan A.	Course-related field trip in excess of assigned WTUs: GSC 311 GIS Applications-- Icehouse Canyon, May 9, 2008
Nourse	Jonathan A.	Senior thesis supervision in excess of assigned WTUs: Heaton, Daniel, 2008, Comparison of Late Cretaceous plutonioc rocks across the San Antonio Canyon fault, San Gabriel Mountains, California: senior thesis, Cal Poly Pomona, 23 pages.
Nourse	Jonathan A.	Senior thesis supervision in excess of assigned WTUs: Kroll, Kayla, 2008, Structural Analysis of the Borrego Springs shear zone, Anza-Borrego State Park, California: senior thesis, Cal Poly Pomona, 25 pages plus appendices and plates.
Polet	Jascha	New course design: Introduction to Global Geophysics, GSC 307 (cross listed as PHY 307)(3/1). Taught winter 2008.
Polet	Jascha	New course design: Introduction to Seismology, Earthquakes and Earth Structure, GSC 499(3/1). Taught spring 2008.
Polet	Jascha	New course design: Engineering Geology II, GSC 415/415L (3/1).
Polet	Jascha	Senior thesis supervision in excess of assigned WTUs: Avant, Travis, 2008, Determining Fault Kinematics for Earthquakes with Unknown Focal Mechanisms Using Seismogram Cross-Correlation Techniques: Test Case of the 06/2007 Kuril Islands Earthquake Sequence

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Department and College Reports

FACULTY and STAFF DEVELOPMENT INDICATORS
Contributions to Professional Associations

NAME of Department: Geology

NAME of College: College of Science

Faculty/Staff Development Indicators: Contributions to Professional Associations
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Marshall	Jeffrey S.	Geosciences Division Councilor, Council on Undergraduate Research (CUR), Washington, D.C., (since 2004) currently serving 2nd elected term until 2010.
Marshall	Jeffrey S.	Session chair and abstract reviewer for: New Directions in Undergraduate Geosciences Education: Bringing Together Research, Teaching, and Technology in the Classroom and Field, American Geophysical Union (AGU), Fall Meeting, San Francisco, CA, December 12, 2007.
Marshall	Jeffrey S.	Session chair and abstract reviewer for: Undergraduate Research Poster Session, Geological Society of America, Cordilleran Section Meeting, Las Vegas, NV, March 2008.
Marshall	Jeffrey S.	Faculty reviewer for student research abstracts submitted to the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Annual Conference, May 2008.
Marshall	Jeffrey S.	Professional Development Workshop Facilitator and Group Leader, CUR Workshop on Institutionalizing Undergraduate Research, California State University Northridge, Feb. 15-17, 2008.
Marshall	Jeffrey S.	Peer reviewer for research proposal submitted to National Geographic Society, July 2007.
Marshall	Jeffrey S.	Peer reviewer for research proposal submitted to American Chemical Society Petroleum Research Fund (ACS-PRF), July 2007.
Marshall	Jeffrey S.	Peer reviewer for research proposal submitted to International Ocean Drilling Program (IODP), July 2007.
Marshall	Jeffrey S.	Peer reviewer for research proposal submitted to National Science Foundation Tectonics Program, Sept 2007.
Marshall	Jeffrey S.	Peer reviewer for research proposal submitted to National Science Foundation Tectonics Program, March 2008.
Marshall	Jeffrey S.	Peer reviewer for research manuscript submitted to G-Cubed: Geochemistry, Geophysics, and Geosystems, April 2008.
Nourse	Jonathan A.	Peer reviewer for manuscript submitted to Geological Society of America Bulletin, March, 2008.

Nourse	Jonathan A.	Peer reviewer for manuscript submitted to Geological Society of America Bulletin, July, 2007.
Polet	Jascha	Reviewed two research proposals submitted to the Geophysics program of the National Science Foundation
Polet	Jascha	Reviewed manuscript submitted to Earth and Planetary Science Letters
Polet	Jascha	Reviewed manuscript submitted to Geophysical Research Letters
Polet	Jascha	Reviewed manuscript submitted to Geophysical Journal International
Polet	Jascha	Submitted successful application for department membership to the Southern California Earthquake Center (SCEC)

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FACULTY and STAFF DEVELOPMENT INDICATORS
External Grants

NAME of Department: Geology

NAME of College: College of Science

Faculty/Staff Development Indicators: External Grants
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Jessey	David R.	Jessey, David R., and Kieta, Andrew, 2008, Micro-imaging Spectrometry, NASA JPL Grant #J2397; prog. GL519; Amount awarded: $4,855.
Marshall	Jeffrey S.	National Science Foundation (NSF) Continental Dynamics Program Full-Proposal: Transformation of Oceanic Plateaus Into Continents (TROPICS), 5-year multi-university collaborative project, including Research Experience for Undergraduates (REU) Program, submitted November 2007 (Total Request: $5 million, Cal Poly Pomona Request: $254,000)
Marshall	Jeffrey S.	Marshall, Jeffrey S., College of Science International Field Studies Program: Costa Rica, Central America; Quality Learning Fund, Amount awarded: $15,000.
Polet	Jascha	Polet, Jascha, The Seismology of Shallow Intraplate Subduction Earthquakes: From Outer Rise to Interface; National Science Foundation; Original amount: $106,961; Transfer amount: $72,000
Polet	Jascha	Polet, Jascha, Collaborative Research with California State Polytechnic University in Pomona and URS Corporation: Rapid Estimates of Rupture Extent for Large Earthquakes Using Aftershocks; National Earthquake Hazard Reduction Program; Amount awarded: $29,185

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FACULTY and STAFF DEVELOPMENT INDICATORS
Awards and Recognition

NAME of Department: Geology

NAME of College: College of Science
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Faculty/Staff Development Indicators: Awards and Recognition
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Marshall	Jeffrey S.	2007-09 Provost's Teacher-Scholar, Cal Poly Pomona University
Marshall	Jeffrey S.	National Association of Geoscience Teachers (NAGT), On the Cutting Edge Web Site, Early Career Faculty Case Study: Jeff Marshall, Cal Poly Pomona University
Marshall	Jeffrey S.	National Association of Geoscience Teachers (NAGT), On the Cutting Edge Web Site, Teaching Geomorphology in the 21st Century, Geomorphology Course Case Study: Jeff Marshall, Cal Poly Pomona University
Marshall	Jefferey S.	Co-recipeint of outstanding 2008 Geology Club Advisor award
Nourse	Jonathan A.	Co-recipeint of outstanding 2008 Geology Club Advisor award

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Department and College Reports

STUDENT DEVELOPMENT INDICATORS
Publications & Creative Activities (Peer Reviewed)

NAME of Department: Geology

NAME of College: College of Science
:

Undergraduate and Graduate Student Development Indicators: Publications and Creative Activities (Peer Reviewed)
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Amborn	Terri	Gardner, T., Webb, J., Pezzia, C., *Amborn, T., Tunnell, R., Flanagan, S., Kapostasy, D., Merritts, D., Marshall, J., Fabel, D., Cupper, M., 2008 (submitted 2/08), Deformation of Late Neogene and Quaternary Marine Terraces, Cape Liptrap, southeastern Australia: Quaternary Science Reviews.

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Department and College Reports

STUDENT DEVELOPMENT INDICATORS
Publications & Creative Activities (Non-Peer Reviewed)

NAME of Department: Geology

NAME of College: College of Science
:

Undergraduate and Graduate Student Development Indicators: Publications and Creative Activities (Non-Peer Reviewed)
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Amborn	Terri	Gardner, T., Pezzia, C., *Amborn, T., Tunnell, R., Flanagan, S., Merritts, D., Marshall, J., Webb, J., Fabel, D., and Cupper, M.L. 2007, Deformation of late Neogene and Quaternary marine terraces, Cape Liptrap, southeastern Victoria, Australia: XVII INQUA Congress Abstracts, Quaternary International, v. 167/168, p. 132.
Avant	Travis	Avant, Travis, 2008, Determining Fault Kinematics for Earthquakes with Unknown Focal Mechanisms Using Seismogram Cross-Correlation Techniques: Test Case of the 06/2007 Kuril Islands Earthquake Sequence
Brown	Julie	Brown, Julie M., 2008, Petrology and geochemistry of Jurassic metasedimentary and metavolcanic rocks of the Alabama Hills and southern Inyo Mountains, near Lone Pine, CA, Senior Thesis, 35 pp.
Heaton	Daniel	Heaton, Daniel, 2008, Comparison of Late Cretaceous plutonioc rocks across the San Antonio Canyon fault, San Gabriel Mountains, California: senior thesis, Cal Poly Pomona, 23 pages.
Kroll	Kayla	Kroll, Kayla, 2008, Structural Analysis of the Borrego Springs shear zone, Anza-Borrego State Park, California: senior thesis, Cal Poly Pomona, 25 pages plus appendices and plates.
LaFromboise		Marshall, J.S., *LaFromboise, E.J., Gardner, T.W., and Protti, M., 2007, Segmented fore arc deformation along the Nicoya Peninsula seismic gap, Costa Rica: Eos, Transactions, American Geophysical Union, v. 88, Fall Meeting Supplement, Abs T53A-1121, 2007.
LaFromboise	Eli	Marshall, J.S., *LaFromboise, E.J., Gardner, T.W., and Protti, M., 2007, Upper plate faulting and uplift along the Nicoya Peninsula seismic gap, northern Costa Rica fore arc: NSF MARGINS Program, Central America Seismogenic Zone and Subduction Factory Focus-Site Workshop, Heredia, Costa Rica, 2007.

Lusk	Matthew	Lusk, Matthew, 2007, Geochemical and petrographic analysis of the basalts of the Darwin Plateau, Inyo County, CA: Senior Thesis, 42 pp.
Ruotolo	Allison	Allison Ruotolo, 2008, Senior Thesis, Cal Poly Pomona Geological Sciences Department, "Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain foothills, eastern Los Angeles County, California"
Ruotolo	Allison	*Ruotolo, A.M., *Ellis, R.A., and Marshall, J.S., 2008, Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain Foothills, eastern, Los Angeles County, California: Geological Society of America, Abstracts with Programs, v. 40, no. 1, Abs. 16-1, p. 64.
Utick	John	Marshall, J.S., *LaFromboise, E.J., *Utick, J.D., *Khaw, F., *Morrish, S.C., *Piestrzeniewicz, P., *Gilbert, R.C., Gardner, T.W., and Protti, J.M., 2008, Tectonic geomorphology and forearc deformation along the Nicoya Peninsula seismic gap, Costa Rica: Resumenes del IX Congreso Geológico de América Central, San José, Costa Rica, 2008.

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STUDENT DEVELOPMENT INDICATORS
Professional Conference Presentations

NAME of Department: Geology

NAME of College: College of Science

Undergraduate and Graduate Student Development Indicators: Professional Conference Presentations

Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Baltzer	Suzanne	Baltzer, Suzanne, M., 2008, Landslide damage within Big Santa Anita Canyon, Los Angeles, CA, Geol. Society of America, Cordilleran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.
Brown	Julie	Brown, Julie M., Bruns, Jessica J., and Jessey, David R., 2008, Petrochemical trends of Neogene basaltic volcanism in the southern Owens Valley, CA, Geol. Society of America, Cordilleran/Rocky Mountain Sections, Abstracts with Programs, Las Vegas, NV. vol. 40.
Lusk	Matthew	Lusk, Matthew W., and Jessey, D. R., 2007, Cenozoic volcanism on the Darwin Plateau, Southern California Academy of Sciences, Abstracts with Programs, Fullerton, CA. vol 106; #2, pp. 54A.
Lusk	Matthew	Lusk, Matthew W. and Jessey, David R., 2007, Geochemical and petrographic analyses of the basalts of the Darwin Plateau, Inyo County, CA, Geological Society of America, Rocky Mountains Section, Abstracts with Programs, vol. 39, #5, pp. 42.
Michalka	Leianna	Jessey, David R., Reynolds, Robert E., Michalka, Leianna L. and Baltzer, Suzanne M., 2007, Tectonic implications of late Cenozoic volcanism in the eastern Mojave Desert, Geological Society of America, Rocky Mountains Section, Abstracts with Programs, vol. 39, #5, pp. 36.
Ruotolo	Allison	Ruotolo, A.M., Ellis, R.A., and Marshall, J.S., 2008, Tectonic geomorphology and clast provenance of uplifted alluvial fan gravels, San Gabriel Mountain Foothills, eastern, Los Angeles County, California: Geological Society of America, Abstracts with Programs, v. 40, no. 1, Abs. 16-1, p. 64.

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STUDENT DEVELOPMENT INDICATORS
Contributions to Professional Associations

NAME of Department: Geology

NAME of College: College of Science
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Undergraduate and Graduate Student Development Indicators: Contributions to Professional Associations
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)

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Department and College Reports

STUDENT DEVELOPMENT INDICATORS
Awards and Recognition

NAME of Department: Geology

NAME of College: College of Science

Undergraduate and Graduate Student Development Indicators: Awards and Recognition
Use standard citation format common to the disciplines; Only report what appeared in 2007-08

Last Name	First Name	Standard Citation (Max characters allowed:500)
Brown	Julie	Graduated from the honors Program in Hune, 2008. Will attend graduate school at University of Nevada, Reno, in Geochemistry
Brown	Julie	Recipient of 2008 Brent Norum Brunton compass award--$300
Brown	Julie	Recipient of 2008 Henderson-Valles academic scholarship--$1000
Kroll	Kayla	Recipient of 2008 Margaret van Buskirk scholarship--$750
Oliver	Brian	Recipient of 2008 Grace Teal Memorial scholarship--$3000
Poste	Kimberly	Recipient of 2008 Grace Teal Memorial scholarship--$3000
		Recipient of 2008 Ernest Prete scholarship--$1000

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Department and College Reports

Institutional Reputation

NAME of Department: Geology

NAME of College: College of Science

Gifts – 3 year comparison

This includes all cash gifts such as annual fund, scholarships, donations
See Performance Measure Chart
(Maximum characters allowed: 200)

2007-2008 Total Cash Donations = $5,040:
--$2,000 Alice Lane: Alice Lane Student Support Fund
--$1,430 alumni contributions: newly established Field Experiences Fund
--$1,000, Kathy Kwan & Morton Price, Margaret Claire Van Buskirk Memorial Scholarshi

In-Kind Gift- 3 year comparison

See Performance Measure Chart
(Maximum characters allowed: 200)

2007 – 2008 Total Donations = $25,019:
--$19,590 Rose Ryland, geophysical instrumentation
--$500 Peter Valles, American Geological Institute (AGI) Glossaries etc. rock hammers, field notebooks, reference books
--$4,422 Joe Siefke, Borate minerals
--$307

Students involved in the Community

This category encompasses service learning, internships, volunteer work, etc.; in the narrative briefly describe he opportunities provided through curse work, clubs, events, etc.
(Maximum characters allowed: 500)

The hands-on learning emphasis and focus on field experiences makes geoscience undergraduates well prepared for professional careers in the Earth Sciences, Hydrogeology, etc. The Department has an ongoing and long established ties with several geotechnical / hydrology firms. At the Orange County Water District students work 20 hrs/week on projects related to groundwater resource monitoring, management and development. Typical tasks include management of groundwater data bases in the office, and visiting various well sites in the field to measure water levels, collect water samples for chemical analysis, and conduct well logging.
As evidence of this tie with the Orange County Water District, the District provided, at no cost to a

student intern, hundreds of high quality dissolved element water analyses. These analyses were used as part of the student's senior thesis.
The Jet Propulsion Laboratory currently has a Geoscience student intern.
Students gain valuable practical experience in the growing industry of hydrogeology. Students have served as interns with the Inland Empire Utilities, and Geoscience Support Services, Inc. Each of these opportunities provided Geology majors with valuable work experience, hands on learning and important contacts for future careers.

Campus Community Partnerships

This narrative should identify groups, individuals, and organizations with whom the department had an active relationship; include a description of the impact.
(Maximum characters allowed: 1000)

The Geological Sciences Department is the meteorite and mineral identification "headquarters". It is routine for individuals to bring specimens to the Department for identification. Faculty and staff spend whatever time necessary and have, on occasion, conducted analyses to satisfy the curiosity and advise of the individual.
The Geological Sciences Department and the Geology Club are involved with the Inland Empire section of the Association of Engineering and Environmental Geologists (AEG). This organization funded a Geological Society of America Jahn's Distinguished lecturer. The Geology Club has established a local student section of AEG. Faculty and students have been invited speakers at AEG meetings. AEG has given awards to Geology majors to support student research or to attend summer field camps.
GSC faculty organized the Association of Environmental and Engineering Geologists (AEG), Inland Empire Chapter Meeting and Lecture, sponsored jointly by Cal Poly Pomona Geology Club and Geotechnical Club, Kellogg West Conference Center, January 16, 2008.

Accreditations or Program Reviews

Describe the results of the external review.
(Maximum characters allowed: 500)

Geological Sciences does not have an accrediting agency.

Alumni Relations

Include activities such as: organized efforts to reach alumni; participation in Professor for a Day; recommendation of distinguished alumni; interaction with alumni
(Maximum characters allowed: 500)

Geological Sciences does not have an accrediting agency.

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PERFORMANCE MEASURES

NAME of Department: Geology

NAME of College: College of Science

Performance Measures	Fall 2005	Fall 2006	Fall 2007	Comments
Student Success				
Number of Majors	29	38	36	24 % increase in majors in three years
Number of Post Bac Students	1	1	1	
Grad Rate 6 yr FTS	33.3 %	0	0	
Grad Rate 3yr Transfer	66.7 %	50 %	0	
Persistence Rate 1st to 2nd	100 %	.0	60 %	
# FTS Admitted	10	15	6	
# FTS Enrolled in FYE	0	0		
% At-Rist 2.0 and Below	3.8 %	13.8 %	7.1 %	
% At-Risk 2.0-2.2	11.5 %	13.8 %	21.4 %	
Faculty & Staff Development				
FTET in General Education	143	142	174	
FTET in Service Courses	0	0	0	GSC 321 & SCI 212 defined as Gen Ed, not service
FTET in Major	5.9	8.5	8.3	
FTET in Post-Bac Level	0	0	0	NO GRADUATE PROGRAM
FTEF TT-Tenure Track	87	83.3	102	
FTET TF-Temporary Faculty - %	1.9 %	3 %	3.2 %	Geology increaseingly relies on PT instructors
FTET by TT Faculty - %	57 %	54 %	56 %	Increase in Total FTE linked to increases in PT instructors
Student to Faculty Ratio	23.85	26.36	21.59	
Major to Faculty Ratio	5	6	6	

Annual Report on Indicators of Success for 2007-08
Department and College Reports

PERFORMANCE MEASURES

NAME of Department: Geology

NAME of College: College of Science

Performance Measures	Fall 2005	Fall 2006	Fall 2007	Comments
Institutional Reputation				
Cash Gifts	$31,139	$15,500	$4,855	See institutional reputation commentary for GSC derived dataSee institutional reputation commentary for GSC derived data
In-Kind Gifts	$4,163.33	$16,506.45	$30,513	See institutional reputation commentary for GSC derived data
Annual Fund	$3,265	$2,053	$ 525	See institutional reputation commentary for GSC derived data
Grants Submitted Value	$197,161	$453,628	$372,879	See institutional reputation commentary for GSC derived data

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Department and College Reports

PERFORMANCE MEASURE COMMENTS

NAME of Department: Geology

NAME of College: College of Science

Commentary or specific data from Performance Measures Chart
(Maximum characters allowed: 1000)

Geoscience majors have increased 24 % in three years. Geology's "show rate" is consistently above 50 % (sometimes above 80 %). Geology's observed 24 % increase in majors is not accounted for by incoming admits alone. The increase in majors over the three year data period is related to transfer students and most significantly "internal transfers" (changes of major). Internal transfers, must constitute a chief source of geoscience majors. This has been verified by a survey of GSC majors. Data obtained by Geology suggests that since 2005, of more than 75 total students (respondents) most have entered the Department either by change of major (40 students) or transferred from a community college (23). The Performance Data suggest only 31 new majors. Cal Poly students are exposed to Geology and then change their major to one of Geology's two majors. High schools do not do a good job articulating their student about the Earth Sciences.
At risk students constitute a small, variable, fraction of the total number of majors. Geology's numbers of at risk students do not appear, in general, significantly different than numbers from other Science Departments or other Colleges. Science disciplines are inherently difficult disciplines – lab and field intensive, strong array of science support plus general education courses.
Geology's SFR ranks high in the College of Science. Geology's SFR ratio is approximately equal or in some years above the CSU System average for Geology (~22). Geology's SFR is not strongly different than other campus Departments. This is significant because Geology is, like other Science programs, a laboratory-based discipline.
Approximately a 20 % increase in FTE has occurred over the three year data period. Demand for geoscience courses is strong. As evidenced by the increased fall quarter use of temporary faculty, Geology is teaching well in excess of its tenure stream faculty compliment. Additional tenure track faculty positions are justified. This is especially true in the areas of Engineering Geology and Sedimentary Geology.

Conclusion and pathway to the future
(Maximum characters allowed: 1000)

Further increasing the number of geoscience majors would improve performance measures. Geology can improve its total number of majors by better interaction with the high schools. This could take the form of camps events, interaction with high school councilors, classroom visits or focused interaction with Geology alumni who have come instructors. Better "education" of the population of high school

students could improve the numbers of applications from first time freshmen.