

Curriculum Vitae for Jon D. Pelletier

Address

Geosciences Department, 1040 E. Fourth St., Tucson, AZ 85721

Phone: 520-626-2126; Fax: 520-621-2672

Electronic Mail: jdpellet@email.arizona.edu

Education

- 1997 Ph.D., Geological Sciences, Cornell University, Ithaca, NY
Research advisor: Donald L. Turcotte
- 1992 B.S. with honors, Physics, California Institute of Technology, Pasadena, CA
Research advisor: Thomas A. Tombrello

Employment

- 2010-present Professor, Geosciences Department, University of Arizona
- 2005-2010 Associate Professor, Geosciences Department, University of Arizona
- 1999-2005 Assistant Professor, Geosciences Department, University of Arizona
- 1997-1999 O.K. Earl Prize Postdoctoral Scholar, California Institute of Technology
- 1995-1997 Graduate Research Assistant, Geosciences Department, Cornell University
- 1993-1995 Graduate Teaching Assistant, Physics Department, Cornell University
- 1992-1993 Research Scientist, Nuclear Physics Department, Schlumberger-Doll Research

Additional Professional Activities and Affiliations

- 2012-present Associate editor, GSA journal *Geological Society of America Bulletin*
- 2014-present Associate editor, AGU journal *Journal of Geophysical Research – Earth Surface*
- 2005-present Associate editor, Elsevier journal *Geomorphology*
- 2008-2012 Coeditor, GSA journal *Lithosphere*
- 2007-present Adjunct faculty member, Planetary Sciences Department, University of Arizona.
- 2004-2007 Consulting geomorphologist, Yucca Mountain Project, Department of Energy.
- 2002-present Affiliate faculty member, Applied Mathematics Program, University of Arizona
- 2001-present Affiliate faculty member, Institute for the Study of Planet Earth, University of Arizona

Honors/Awards

- Galileo Circle Fellow, College of Science, University of Arizona, 2011
- O.K. Earl Prize Postdoctoral Scholar, California Institute of Technology, 1997-1999
- Texaco Graduate Fellowship, Geosciences Department, Cornell University, 1995
- Chevron Graduate Fellowship, Geosciences Department, Cornell University, 1996
- Green Prize for Undergraduate Research, Physics Department, Caltech, 1992
- Barry M. Goldwater Scholarship, 1990-1992
- Caltech Merit Scholarship, 1990-1992

Books

- Pelletier, J.D., *Quantitative Modeling of Earth Surface Processes*, Cambridge University Press, 2008.

Publications (published and accepted for publication)

- Pelletier, J.D., and C.A. Orem, How do sediment yields from post-wildfire debris-laden flows depend on terrain slope, soil burn severity class, and drainage basin area? Insights from airborne-lidar change detection, *Earth Surface Processes and Landforms*, in press.
- Engelder, T., and J.D. Pelletier, Simulating foreland-basin response to mountain-belt kinematics and climate change in the Eastern Cordillera and Subandes: An analysis of the Chaco foreland basin in southern Bolivia, *GSA Special Memoir*, in press.
- Niu, G.-Y., P.A. Troch, C. Paniconi, R.L. Scott, M. Durcik, X. Zeng, T. Huxman, D. Goodrich, and J.D. Pelletier, An integrated modelling framework of catchment-scale ecohydrological processes: 2. The role of water subsidy by overland flow on vegetation dynamics in a semi-arid catchment, *Ecohydrology*, in press.
- Pelletier, J.D., A.B. Murray, and J.E. Pierce, Assessing ability to forecast geomorphic system response to climate and land-use changes, *Eos Trans. AGU*, **95(1)**, 3,7, 2014.
- Pelletier, J.D., Deviations from self-similarity in barchan form and flux: The case of the Salton Sea dunes, California, *Journal of Geophysical Research*, **118**, doi:10.1002/2013JF002867, 2013.
- Komatsu, G., Goto, K., Baker, V.R., Oguchi, T., Yuichi S. Hayakawa, Y.S., Hitoshi Saito, H., Jon D. Pelletier, J.D., McGuire, L., and Iijima, Y., Effects of tsunami wave erosion on natural landscapes: Examples from the 2011 Tohoku-oki Tsunami, in Kontar, Y., Santiago-Fandiño, V., and Takahashi, T., editors, *Tsunami Events and Lessons Learned; Environmental and Societal Significance*. Springer, Heidelberg, p. 243-253, 2013.
- McGuire, L.A., J.D. Pelletier, Relationships between debris fan morphology and flow rheology for wet and dry flows on Earth and Mars: A numerical modeling investigation, *Geomorphology*, **197**, 145–155, 2013.
- Engelder, T., and J.D. Pelletier, Autogenic cycles of channelized fluvial and sheet flow and their potential role in driving long-runout gravel progradation in sedimentary basins, *Lithosphere*, **5**, 343–354, doi:10.1130/L274.1, 2013.
- McGuire, L.A., J.D. Pelletier, J.A. Gomez, and M.A. Nearing, Controls on the spacing and geometry of rill networks on hillslopes: Rain-splash detachment, initial hillslope roughness, and the competition between fluvial and colluvial transport, *Journal of Geophysical Research*, **118**, doi:10.1002/jgrf.20028, 2013.
- Pelletier, J.D., Barron-Gafford, G.A., Breshears, D.D., Brooks, P.D., Chorover, J., Durcik, M., Harman, C.J., Huxman, T.E., Lohse, K.A., Lybrand, R., Meixner, T., McIntosh, J.C., Papuga, S.A., Rasmussen, C., Schaap, M., Swetnam, T.L., and Troch, P.A., Coevolution of nonlinear trends in vegetation, soils, and topography with elevation and slope aspect: A case study in the sky islands of southern Arizona, *Journal of Geophysical Research – Earth Surface*, **118**, doi:10.1029/2012JF002569, 2013.
- Crouvi, O., J.D. Pelletier, and C. Rasmussen, Predicting the thickness and aeolian fraction of soils in upland watersheds of the Mojave Desert, *Geoderma*, **195-196C**, 94-110, 2013.
- Fenton, C.R., and J.D. Pelletier, Cosmogenic ³He age estimates of Plio-Pleistocene alluvial-fan surfaces in the Lower Colorado River corridor, Arizona, USA, *Quaternary Research*, **79**, 86-99, 2013.
- Pelletier, J.D., A robust, two-parameter method for the extraction of drainage networks from high-resolution Digital Elevation Models (DEMs): Evaluation and comparison to alternative methods using synthetic and real-world DEMs, *Water Resources Research*, **49**, doi:10.1029/2012WR012452, 2013.

- Pelletier, J.D., S.B. DeLong, C.A. Orem, P. Becerra, K. Compton, K. Gressett, J. Lyons-Baral, L.A. McGuire, J. Molaro, and J. Spinler, How do vegetation bands form in drylands? Insights from numerical modeling and field studies in southern Nevada, U.S.A., *Journal of Geophysical Research*, **117**, F04026, doi:10.1029/2012JF002465, 2012.
- Pelletier, J.D., A spatially-distributed model for the long-term suspended sediment discharge and delivery ratio of drainage basins, *Journal of Geophysical Research*, **117**, F02028, doi:10.1029/2011JF002129, 2012.
- Pelletier, J.D., and J.T. Perron, Analytic solution for the morphology of a soil-mantled valley undergoing steady headward growth: Validation using case studies in southeastern Arizona, *Journal of Geophysical Research*, **117**, F02018, doi:10.1029/2011JF002281, 2012.
- Pelletier, J.D., Fluvial and slope-wash erosion of soil-mantled landscapes: detachment- or transport-limited? *Earth Surface Processes and Landforms*, **37**, 37-51, 2012.
- Pelletier, J.D., Fundamental Principles and Techniques of Landform Evolution Modelling, in Schroder, J., ed., *Treatise on Geomorphology*, Elsevier, 2012.
- Pelletier, J. D., and V. R. Baker, The role of weathering in the formation of bedrock valleys on Earth and Mars: A numerical modeling investigation, *Journal of Geophysical Research*, **116**, E11007, doi:10.1029/2011JE003821, 2011.
- Pelletier, J. D., L.A. McGuire, J.L. Ash, T.M. Engelder, L.E. Hill, K.W. Leroy, C.A. Orem, W.S. Rosenthal, M.A. Trees, C. Rasmussen, and J. Chorover, Calibration and testing of upland hillslope evolution models in a dated landscape: Banco Bonito, New Mexico, *Journal of Geophysical Research*, **116**, F04004, doi:10.1029/2011JF001976, 2011.
- DeLong, S.B., L.J. Arnold, and J.D. Pelletier, Late Holocene alluvial history of the Cuyama River, California, USA, *Geological Society of America Bulletin*, **123**, 2160-2176, 2011.
- Pelletier, J.D., J. Quade, R.J. Goble, and M.S. Aldenderfer, Widespread hillslope gullying on the southeastern Tibetan Plateau: Human or climate-change induced? *Geological Society of America Bulletin*, **123**, 1926-1938, 2011.
- Kapp, P., J.D. Pelletier, A Rohrmann, R. Heermance, and J. Russell, Wind erosion in the Qaidam Basin, central Asia: Implications for tectonics, paleoclimate, and the source of the Loess Plateau, *GSA Today*, **21**, 4-10, 2011.
- Rasmussen, C., P. Brooks, J. Chorover, T. Huxman, P.A. Troch, and J.D. Pelletier, An open system framework for integrating critical zone structure and function, *Biogeochemistry*, **102**, 15-29, 2011.
- Pelletier, J.D., How do pediments form? A numerical modeling investigation with comparison to pediments in southern Arizona, USA, *Geological Society of America Bulletin*, **122**, 1815-1829, 2010.
- Pelletier, J.D., Minimizing the grid-resolution dependence of flow-routing algorithms for geomorphic applications, *Geomorphology*, **122**, 91-98, 2010.
- Kolb, K.J., A.S. McEwen, and J.D. Pelletier, Investigating gully flow emplacement mechanisms using apex slopes, *Icarus*, **208**, 132-142, 2010.
- Pelletier, J.D., Numerical modeling of the late Cenozoic geomorphic evolution of Grand Canyon, Arizona, *Geological Society of America Bulletin*, **122**, 595-608, 2010.
- Kolb, K.J., J.D. Pelletier, and A.S. McEwen, Modeling the formation of bright slope deposits associated with gullies in Hale Crater, Mars: Implications for recent liquid water, *Icarus*, **205**, 113-137, 2010.
- Pelletier, J.D., D. Comeau, and J. Kargel, Controls on glacial valley spacing on Earth and Mars, *Geomorphology*, **116**, 189-201, 2010.

- Pelletier, J.D., P.G. DeCelles, and G. Zandt, Relationships among climate, erosion, topography, and delamination in the Andes: A numerical modeling investigation, *Geology*, **38**, 259-262, 2010.
- Pelletier, J.D., and C. Rasmussen, Geomorphically-based predictive mapping of soil thickness in upland watersheds, *Water Resources Research*, **45**, W09417, doi:10.1029/2008WR007319, 2009.
- Banks, M., and seven coauthors, An Analysis of Sinuous Ridges in the Southern Argyre Planitia, Mars using HiRISE and CTX Images and MOLA Data, *Journal of Geophysical Research*, **114**, E09003, doi:10.1029/2008JE003244, 2009.
- Pelletier, J.D., H. Mitasova, R.S. Harmon, and M. Overton, The effects of interdune vegetation changes on eolian dune field evolution: A numerical-modeling case study at Jockey's Ridge, North Carolina, USA, *Earth Surface Processes and Landforms*, **34**, 1245-1254, 2009.
- Pelletier, J.D., Engelder, T.M., Comeau, D., Hudson, A., Leclerc, M., Youberg, A., and S. Diniega, Tectonic and structural control of fluvial channel morphology in metamorphic core complexes: The example of the Catalina-Rincon core complex, Arizona, *Geosphere*, **5**, 363-384, 2009.
- Pelletier, J.D., The impact of snowmelt on the late Cenozoic landscape of the southern Rocky Mountains, USA, *GSA Today*, **19**(7), 4-10, 2009.
- Pelletier, J.D., and C. Rasmussen, Quantifying the climatic and tectonic controls on hillslope steepness and erosion rates, *Lithosphere*, **1**, 73-80, 2009.
- Huxman, T., and 7 coauthors, The Hills are Alive: Interdisciplinary Earth science at Biosphere 2, *EOS*, **90**, 120, 2009.
- Pelletier, J.D., Controls on the height and spacing of eolian ripples and transverse dunes: A numerical modeling investigation, *Geomorphology*, **105**, 322-333, 2009.
- Banks, M., and ten coauthors, HiRISE Observations of Glacial and Periglacial Morphologies in the Circum-Argyre Planitia Highlands, Mars, *Journal of Geophysical Research*, **113**, E12015, doi:10.1029/2007JE002994, 2009.
- Murray, A.B., and eleven coauthors, Geomorphology, complexity, and the emerging science of the Earth's surface, *Geomorphology*, **103**, 496-505, 2009.
- Pelletier, J.D., A.L. Leier, and J.R. Steidtmann, Wind-driven reorganization of coarse clasts on the surface of Mars, *Geology*, **37**, 55-58, 2009.
- Moores, J.E., J.D. Pelletier, and P.H. Smith, Crack propagation by differential insolation on desert surface clasts, *Geomorphology*, **102**, 472-481, 2008.
- Keating, G., J.D. Pelletier, G. Valentine, and W. Statham, Evaluating Suitability of a Tephra Dispersal Model as Part of a Risk Assessment Framework, *Journal of Volcanology and Geothermal Research*, **177**, 397-404, 2008.
- Blainey, J., and J.D. Pelletier, Infiltration on alluvial fans in arid environments: Influence of fan morphology, *Journal of Geophysical Research*, **113**, F03008, doi:10.1029/2007JF000792, 2008
- DeLong, S.B., J.D. Pelletier, and L.J. Arnold, Climate-change-triggered sedimentation and progressive tectonic uplift in a coupled piedmont-axial system: Cuyama Valley, California, USA, *Earth Surface Processes and Landforms*, **33**, 1033-1046, 2008.
- Pelletier, J.D., Research focus: Glacial erosion and mountain building, *Geology*, **36**, 591-592, 2008.
- Pelletier, J.D., K.J. Kolb, A.S. McEwen, and R.L. Kirk, Recent gully deposits on Mars: Wet or dry flow? *Geology*, **36**, 211-214, 2008.

- Pelletier, J.D., M.L. Cline, S.B. DeLong, C.D. Harrington, and G.N. Keating, Dispersion of channel-sediment contaminants in fluvial systems: Application to tephra redistribution following a potential volcanic eruption at Yucca Mountain, *Geomorphology*, **94**, 226-246, 2008.
- Banks, M., and J.D. Pelletier, Numerical modeling of ice-cap geometry over cratered terrain: Application to the south polar region of Mars, *Journal of Geophysical Research*, **113**, doi:10.1029/2007JE002895, 2008.
- Pelletier, J.D., Fractal behavior in space and time in a simplified model of fluvial landscape evolution, *Geomorphology*, **91**, 291-301, 2007.
- Pelletier, J.D., M. Cline, and S. DeLong, Desert pavement dynamics: Numerical modeling and field-based calibration, *Earth Surface Processes and Landforms*, **32**, 1913-1927, 2007.
- Pelletier, J.D., and M.L. Cline, Nonlinear slope-dependent transport in cinder cone evolution, *Geology*, **35**, 1067, 2007.
- Pelletier, J.D., Numerical modeling of the Cenozoic fluvial evolution of the southern Sierra Nevada, California, *Earth and Planetary Science Letters*, **259**, 85-96, 2007.
- Cook, J.P., and J.D. Pelletier, Relief threshold for eolian transport across alluvial fans, *Journal of Geophysical Research*, **112**, F02026, doi:10.1029/2006JF000610, 2007.
- Pelletier, J.D., A Cantor set model of eolian dust accumulation on desert alluvial fan terraces, *Geology*, **35**, 439-442, 2007.
- DeLong, S.B., J.D. Pelletier, and L. Arnold, Bedrock landscape evolution modeling: Calibration using geochronology and DEM analysis, *Geological Society of America Bulletin*, **119**, 157-173, 2007.
- Pelletier, J.D., Erosion-rate determination from foreland basin geometry, *Geology*, **35**, 5-8, 2007.
- Barnes, J.B., T.A. Ehlers, N. MacQuarrie, P.B. Sullivan, and J.D. Pelletier, Eocene to recent variations in erosion across the central Andean fold-thrust belt, northern Bolivia: Implications for plateau evolution, *Earth and Planetary Science Letters*, **248**, 118-133, 2006.
- Barnes, J.B., and J.D. Pelletier, Latitudinal variation of denudation in the evolution of the Bolivian Andes, *American Journal of Science*, **306**, 1-31, 2006.
- Pelletier, J.D., Sensitivity of playa windblown-dust emissions to climatic and anthropogenic change, *Journal of Arid Environments*, **66**, 62-75, 2006.
- Pelletier, J.D., S. DeLong, A.H. Al Suwaidi, M.L. Cline, Y. Lewis, J.L. Psillas, and B. Yanites, Evolution of the Bonneville shoreline scarp in west-central Utah: Comparison of scarp-analysis methods and implications for the diffusion model of hillslope evolution, *Geomorphology*, **74**, 257-270, 2006.
- Pelletier, J.D., C.D. Harrington, J.W. Whitney, M.L. Cline, S.B. DeLong, K.T. Ebert, Geomorphic control of radionuclide diffusion in desert soils, *Geophysical Research Letters*, **32**, L23401, doi:10.1029/2005GL024347, 2005.
- Pelletier, J.D., and J.P. Cook, Deposition of playa windblown dust over geologic time scales, *Geology*, **33**, 909-912, 2005.
- Pelletier, J.D., L. Mayer, P.A. Pearthree, P.K. House, J. Klawon, K. Demsey, and K.R. Vincent, An integrated approach to alluvial-fan flood hazard assessment with numerical modeling, field mapping, and remote sensing, *Geological Society of America Bulletin*, **117**, 1167-1180, 2005.
- Pelletier, J.D., Formation of oriented thaw lakes by thaw slumping, *Journal of Geophysical Research*, **110**, doi:10.1029/2004JF000158, 2005.

- Kohfield, K.E., R.L. Reynolds, J.D. Pelletier, and W. Nickling, Linking the scales of dust emissions: A workshop report, *EOS, Transactions of the American Geophysical Union*, **86**, 113-114, 2005.
- Leier, A.L., P.G. DeCelles, and J.D. Pelletier, Mountains, monsoons, and megafans, *Geology*, **33**, 289-292, 2005.
- Pelletier, J.D., Persistent drainage migration in a numerical landform evolution model, *Geophysical Research Letters*, **31**, doi:10.1029/2004GL020802, 2004.
- Pelletier, J.D., The influence of piedmont deposition on time scales of mountain-belt denudation, *Geophysical Research Letters*, **31**, doi:10.1019/2004GL020052, 2004.
- Pelletier, J.D., and S. DeLong, Oscillations in arid alluvial channels, *Geology*, **32**, 713-716, 2004.
- Hsu, L., and J.D. Pelletier, Correlation and dating of Quaternary alluvial fan surfaces using scarp diffusion, *Geomorphology*, **60**, 319-335, 2004.
- Pelletier, J.D., How do spiral troughs form on Mars?, *Geology*, **32**, 365-367, 2004.
- Pelletier, J.D., Estimation of three-dimensional flexural-isostatic response to unloading: Rock uplift due to Late Cenozoic glacial erosion in the western U.S., *Geology*, **32**, 161-164, 2004.
- Pelletier, J.D., Drainage network evolution in the Rainfall Erosion Facility: Dependence on initial conditions, *Geomorphology*, **53**, 183-196, 2003.
- Pelletier, J.D., Coherence resonance and ice ages, *Journal of Geophysical Research*, **108**, doi:10.1029/2002JD003120, 2003.
- Pelletier, J.D., Natural variability of atmospheric temperatures and geomagnetic intensity over a wide range of time scales, *Proceedings of the National Academy of Sciences of the U.S.A.*, **99**, 2546-2553, 2002.
- Pelletier, J.D., Spring-block models of seismicity: Review and analysis of a structurally-heterogeneous model coupled to a viscous asthenosphere, *Geophysical Monographs*, **120**, 27-42, 2000.
- Pelletier, J.D., Are large complex ecosystems more unstable? A theoretical reassessment with predator switching, *Mathematical Biosciences*, **163**, 91-96, 2000.
- Pelletier, J.D., Model assessments of the optimal design of nature reserves for maximizing species longevity, *Journal of Theoretical Biology*, **202**, 25-32, 2000.
- Pelletier, J.D., Statistical self-similarity of magmatism and volcanism, *Journal of Geophysical Research*, **104**, 15425-15438, 1999.
- Pelletier, J.D., and D.L. Turcotte, Self-affine time series: II. *Applications and models*, *Advances in Geophysics*, **40**, 91-166, 1999.
- Pelletier, J.D., The self-organization and scaling relationships of evolving river networks, *Journal of Geophysical Research*, **104**, 7359-7375, 1999.
- Pelletier, J.D., The species-area effect and self-affine dynamics in a biogeographical model of speciation and extinction, *Physical Review Letters*, **82**, 1983-1987, 1999.
- Pelletier, J.D., and D.L. Turcotte, Shapes of river networks and leaves: Are they statistically similar?, *Philosophical Transactions of the Royal Society: Biological Sciences*, **354**, 1-5, 1999.
- Pelletier, J.D., Paleointensity variations of Earth's magnetic field and their relationship with polarity reversals, *Physics of the Earth and Planetary Interiors*, **110**, 115-128, 1999.
- Turcotte, D.L., J.D. Pelletier, and W.I. Newman, Networks with side-branching in biology, *Journal of Theoretical Biology*, **193**, 577-592, 1998.
- Pelletier, J.D. and D.L. Turcotte, Application of a stochastic deposition and erosion model to reservoir heterogeneity and stratigraphic data, *Numerical Experiments in Stratigraphy*:

Recent Advances in Stratigraphic/Sedimentologic Computer Simulation, *SEPM Special Publications*, **62**, 253-264, 1998.

Pelletier, J.D., The power-spectral density of atmospheric temperature from time scales of 10^{-2} to 10^6 yr, *Earth and Planetary Science Letters*, **158**, 157-164, 1998.

Pelletier, J.D. and D.L. Turcotte, Long-range persistence in climatological and hydrological time series: analysis, modeling, and application to drought hazard assessment, *Journal of Hydrology*, **203**, 198-208, 1997.

Pelletier, J.D., B.D. Malamud, T. Blodgett, and D.L. Turcotte, Scale-invariance of soil moisture variability and its implications for the frequency-size distribution of landslides, *Engineering Geology*, **48**, 255-268, 1997.

Pelletier, J.D. and D.L. Turcotte, Synthetic stratigraphy with a stochastic diffusion model of sedimentation, *Journal of Sedimentary Research*, **67**, 1060-1067, 1997.

Pelletier, J.D., Analysis and modeling of the natural variability of climate, *Journal of Climate*, **10**, 1331-1342, 1997.

Pelletier, J.D., Kardar-Parisi-Zhang scaling of the top of the convective boundary layer and the fractal structure of cumulus cloud fields, *Physical Review Letters*, **78**, 2672-2675, 1997.

Pelletier, J.D. and D.L. Turcotte, Scale-invariant topography and porosity variations in fluvial sedimentary basins, *Journal of Geophysical Research*, **101**, 28,165-28,175, 1996.

Pelletier, J.D., Variations in solar luminosity from time scales of minutes to months, *Astrophysical Journal*, **463**, L41-L45, 1996.

Pelletier, J.D., M.H. Shapiro, and T.A. Tombrello, Molecular dynamics simulations of low-energy cluster deposition on metallic targets, *Nuclear Instruments and Methods in Physics Research B*, **67**, 296-300, 1992.

Select recent grant awards as PI or co-PI

NASA Terrestrial Ecology Program, Development of a high-resolution soil depth dataset, \$200k over two years, 4/1/13-3/30/15)

National Science Foundation Earth Surface Processes Program, Transformative Behavior of Water, Energy and Carbon in the Critical Zone: An Observatory to Quantify Linkages among Ecohydrology, Biogeochemistry, and Landscape Evolution (with 11 co-PIs), \$4.3M over five years; 7/1/09-6/30/13.

Army Research Office Terrestrial Sciences Program, Predictive mapping of soil thickness and erosion rates in semi-arid regions (with Craig Rasmussen, \$210k over three years, 7/1/09-6/30/12)

Courses taught (for last 6 years)

Course	Level	Aver. Size	Years Taught	Web Site/Description
<i>Introduction to Geomorphology</i>	Sr-Grad	30	14	geomorphology.geo.arizona.edu //geos450/geos450.html lectures, labs, field trips
<i>Introduction to Natural Science</i>	Frsh	150	5	nats101.geo.arizona.edu lectures, labs, for nonmajors
<i>Natural Hazards</i>	Soph	150	3	
<i>Analytical and Num. Modeling</i>	Grad	15	6	modeling geologic processes

<i>Field Geomorphology</i>	Grad	10	8	field mapping/soils/dating in the Sonoran/Mojave Deserts
<i>Fluvial Seminar</i>	Grad	10	3 (w/ Baker)	current topics/literature review