

SUZANNE PERLITSH WECHSLER

Associate Professor, Department of Geography, California State University Long Beach
(562) 985-2356 • wechsler@csulb.edu

EDUCATION

- Ph.D. State University of New York College of Environmental Science and Forestry (SUNY-ESF), Syracuse, NY. Water Resources Management and GIS Modeling. Research: Effect of Digital Elevation Model (DEM) Uncertainty on Topographic Parameters, DEM Scale and Terrain Evaluation. 5/00
- M.S., Water Resources Management, SUNY-ESF, Syracuse, NY. Research: Integration of GIS data with the Agricultural Nonpoint Source Pollution Model: Effect of Cell Size Resolution and Scale of Soils Data on Model Output. 5/95
- B.A., English, Tufts University, Medford MA. 5/89

HONORS AND AWARDS

- **ESRI 2007 Award for Best Scientific Paper in GIS, 2007** [\$500]
- Horwood Critique Student Prize, Urban and Regional Information Systems Association, 1999. [\$500]
- Hydrology Section of the American Geophysical Union Outstanding Student Paper Award, 1998.
- International Geographic Information Foundation Best Proposed Research Award, 1998. [\$1500]
- SUNY Chancellor's Award for Student Excellence, 1998.
- American Water Resources Association Richard A. Herbert Memorial Scholarship, 1997. [\$1000]
- C. Eugene Farnsworth Fellow for Excellence in Graduate Study, 1996. [\$8000]
- Sigma XI Scientific Research Society, inducted 1996.

AFFILIATIONS

- Association of Pacific Coast Geographers (2002, 2007)
- California Geographical Society (2002), Board Member (2002-2005)
- American Association of Geographers (AAG), 2000
- Urban and Regional Information Systems Association (URISA), 1999.
- American Geophysical Union (AGU), 1997.
- American Water Resources Association (AWRA), 1993.
- Association of Photogrammetry and Remote Sensing (ASPRS), 1992.
- Soil and Water Conservation Society (1992-2002).

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RESEARCH-RELATED ACTIVITIES**PEER REVIEWED PUBLICATIONS**

Wechsler, S. (2007), *Uncertainties associated with digital elevation models for hydrologic applications: a review*, Hydrol. Earth System Science, Special Issue: Uncertainties in Hydrologic Observations, Volume 11, p, 1481-1500.

Wechsler, S. (2006), *Uncertainties associated with digital elevation models for hydrologic applications: a review*, Hydrol. Earth System Science Discussions, Volume 3, p, 1-42.
[publication for online discussion and peer review]

Wechsler, S. and Kroll, C., (2006) *Quantifying DEM Uncertainty and its effects on topographic parameters*, Photogrammetric Engineering & Remote Sensing, Vol 72, No. 9, p. 108-1090.

Ambos, E., Rodrigue, C., Behl, R., Lee, C., **Wechsler, S.**, Holk, G., Larson, D., Francis, R., and Whitney, D., *Geoscience Field Studies at California State University Long Beach: Urban Applied Research with a Community Focus*. Council on Undergraduate Research (CUR) Quarterly, Volume 26, No 2, December 2005.

Wechsler, S., Whitney, D., Ambos, E., Rodrigue, C., Lee, C., Behl, R., Larson, D., Francis, D., Holk, G., 2005. *Enhancing Diversity in the Geosciences*, Journal of Geography, July/August 2005, Volume 104, Number 4 p. 141-149.

Whitney, D., Behl, R., Ambos, E., Francis, D., Holk, G., Larson, D., Lee, C., Rodrigue, C., **Wechsler, S.** *Ethnic Differences in Geoscience Attitudes of College Students*, 2005. Eos, Vol. 86, No. 30 26 July 2005.

Wechsler, S., and Pitts, L., 2004. *GIS In High School Integrates Geography with Technology: A Case Study*, The California Geographer, Volume 44, p. 38-54.

Wechsler, S., 2003. *Perceptions of Digital Elevation Model Uncertainty by DEM Users*, Journal of the Urban and Regional Information Systems Association (URISA), 15:2, 59-64.

CONFERENCE PROCEEDINGS

Wechsler, S., "How well does a DEM represent terrain? An assessment of computer derived terrain parameters", American Water Resources Association Spring 2004 Specialty Conference: GIS and Water Resources. Accepted for proceedings publication, May 2004. CD-ROM ISBN 1-882132-64-5 TPS 04-1.

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CONFERENCE PRESENTATIONS

- “*Enhancing Diversity in the Geosciences*”, California Geographical Society (CGS) Annual Conference, Yosemite, CA, April 2005.
- “*How well does a DEM represent terrain? An assessment of computer derived terrain parameters*”, American Water Resources Association Spring 2004 Specialty Conference: GIS and Water Resources, Nashville, TN, May, 2004
- “*Centroid Hunting: The Truth Is Out There... Or Is It?*”, with Yulet-Ling O'Connor, Peter Wohlgemuth, Brian Sims, Aziz Bakkoury, Annual Association of American Geographers, New Orleans, March 2003.
- “*GDEP (Geoscience Diversity Enhancement Program) Creating a Community-Based Summer Geoscience Research Program*”, Association of Pacific Coast Geographers, San Bernardino, CA, October 2002.
- “*GIS Articulation: Addressing the Issue, Sharing Experiences and Moving Forward*”, with Dr. Christine M. Rodrigue, Environmental Systems Research Institute (ESRI) Educators Conference, July 7, 2002.
- “*Effect of Interpolation Method and Grid Cell Resolution on DEM Accuracy*”, Annual Association of American Geographers, Los Angeles, CA, March 2002.
- “*Panel on Articulation Across All GIS Education Levels*” with Richard Della Valle, Napa Valley Community College, Deidre Sullivan, Monterey Peninsula College, Richard Wright, San Diego State University, and Ann Johnson, ESRI. Cal-GIS, Sacramento, CA, March 2002.
- “*Environmental and Natural Resource Applications of GIS: Course Development*” with graduate student Erin Stockenberg, International Conference on GIS Education, CSU San Bernardino, June 2001.
- “*Effect of Digital Elevation Model Uncertainty and Scale on Topographic Parameter Estimators*”, Annual Association of American Geographers, New York, NY, March 2001.
- “*Applications of a Methodology for Digital Elevation Model (DEM) Uncertainty Simulation Within ArcView Spatial Analyst™*”, GIScience 2000, October 27 to 31, 2000, Savannah GA.

FUNDED CONTRACTS AND GRANTS

- **Faculty Collaborator**, NSF GeoScience Diversity Enhancement Program (GDEP) Track 2. In progress. With Drs. Chris Lee (PI), Camille Holmgren (Co-PI), Lora Stevens (Co-PI), Rick Behl (Co-PI), and others. **Funded by NSF for ~\$640,000**
- **PI**: Development of A LiDAR derived Digital Elevation Model (DEM) as input to a METRANS geographic information system (GIS) for the Ports of Long Beach and Los Angeles. Funded by METRANS, **\$40,000**. *Final Report In Progress*.
- **Co-PI** with Dr. Antonia Wijte on a Wetlands Study for the Santa Ana River Water Quality Control Board. *Completed December 2006*. **\$35,000**.
- **Collaboration** with Drs. Zed Mason, Christopher Lowe, Dessie Underwood, Bruno Pernet on contract with the Santa Ana River Water Quality Control Board to assess water quality of streams and rivers in the Santa Ana River Basin. *5 year project, funding has been committed, formal application and contract in Progress*. Directing Geography 481 students in field sampling site reconnaissance. **\$175,000**. *Report in Progress*.
- **PI**: Ultrasystems Environmental Provided GPS and fieldwork services for a project in Orange County, CA. **\$4,071**. Employed 5 students. Completed December 2003.
- **PI**: City of Carson, “*Services for GASB 34 Compliance*”, \$15,000. Employed 6 students. Completed.
- **PI**: City of Carson, “*GPS Services*”, \$10,000. Employed 6 students. Completed.
- **Collaborator**: “*Fire and Terrain Controls on Soil Carbon in Chaparral Watersheds*”, with University of California Riverside, Employ four students for GPS ground survey and terrain analyses. Completed 2004.

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- **Co-PI:** GeoScience Diversity Enhancement Program [GDEP]. **\$852,000**. Participate in summer research with community college and high school faculty and students. Completed 2004.

Internal Awards:

- Enhancing Educational Effectiveness: GIS for Health Course Feasibility Study, Fall 2007.
- Scholarly and Creative Activities (SCAC) "Elevation Error Assessment in Flat, Gently Sloping and Steep Terrain: Impacts on derived parameters. Release time granted for Spring 2008.
- Scholarly and Creative Activities (SCAC) "Watershed Assessment of Lake Barbara, Orange County CA. Work in progress. Release time granted for Spring 2007.
- Scholarly and Creative Activities (SCAC) Award to assess relationships between terrain and carbon cycling in the San Dimas Experimental Forest. Release time granted for Spring 2005.
- Scholarly and Creative Activities (SCAC) Award to evaluate Interpolation Uncertainty. Release time granted for Spring 2004.
- Scholarly and Creative Activities (SCAC) Award, to evaluate and quantify the accuracy of the computer representation of elevation and derived slope by Geographic Information Systems (GISs). Release time granted for Fall 2003.
- Enhancing Educational Effectiveness: GIS Articulation Feasibility Study, Release time Spring 2003.
- Enhancing Educational Effectiveness: GIS for Natural Sciences, Release time Fall 2002.
- Instructional Related Activities (IRA) for the Geography Department 2007-2008 Allocation. Defended proposal in January 2007. Received \$19,000.
- Instructional Related Activities (IRA) for the Geography Department 2006-2007 Allocation. Defended proposal in January 2006. Received \$18,000.
- Instructional Related Activities (IRA) for the Geography Department 2005-2006 Allocation. Defended proposal in January 2005. Received \$14,000.
- Instructional Related Activities (IRA) for the Geography Department 2004-2005 Allocation. Defended proposal on January 21, 2004. Received \$11,000.
- Instructional Related Activities (IRA) for the Geography Department 2003-2004 Allocation. Defended proposal on January 23, 2003. Received \$16,000.
- Instructional Related Activities (IRA) for the Geography Department 2002-2003 Allocation. Defended proposal on January 25, 2002. Received \$18,000.
- Instructional Related Activities (IRA) for the Geography Department 2001-2002 Allocation. Defended proposal on January 25, 2001. Received \$16,000.
- Travel Award, College of Liberal Arts, California State University, Long Beach, Spring 2005, \$800
- Travel Award, College of Liberal Arts, California State University, Long Beach, Fall 2003, \$800
- Travel Award, College of Liberal Arts, California State University, Long Beach, Spring 2002, \$800
- Travel Award, College of Liberal Arts, California State University, Long Beach, Spring 2001, \$800

GRANT APPLICATIONS

- **Co-PI** with Drs. Chris Lee, Paul Laris and Camille Holgren with Dan Potts, National; Science Foundation (NSF) Research Experience for Undergraduates. *Submitted August 2006, not funded.* Grant would facilitate research related to field work, remote sensing and GIS research.
- **Co-PI** with Drs. Chris Lee and Paul Laris, National; Science Foundation (NSF) Research Experience for Undergraduates. *Submitted in September 2005, not funded.* Grant would facilitate research related to field work, remote sensing and GIS research.
- **Co-PI** with Drs. Chris Lee (PI), Christine Rodrigue, Elizabeth Ambos, Rick Behl, Dan Francis and Greg Holk. GeoScience Diversity Enhancement Program Track 2 [GDEP-2]. Grant would continue summer research opportunities for community college and high school faculty and students. *Submitted October 2004, not funded.*

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- **Co-PI** with Dr. Chris Lee, National; Science Foundation (NSF) Research Experience for Undergraduates. *Submitted in August 2004*. Grant would facilitate research related to field work, remote sensing and GIS research. *Not Funded*.
- **Co-PI** with Drs. Chris Lee (PI), Chrys Rodrigue (senior faculty mentor) and Paul Laris (senior faculty mentor) Geospatial Technologies Research and Education Partnership (GT-REP). NSF REU (Research in Experiences for Undergraduates) Geography and Regional Science Program \$630,000. *Not funded*.
- **PI** for CSULB component of HAVOC [Hazards Assessment and Visualization Online: a Collaboration] with Drs. Christopher Lee, Christine M. Rodrigue, and *Carl Lipo* (Anthropology), and Anita M. Sohus, Karen Yuen, Parvin Kassaie, François Rogez, Lucian Plesea, William M. Whitney, Virgil A. Hammon, and Cynthia H. Atkinson of Jet Propulsion Lab; Crist Kachikian, Hong-Lie Qiu, Paula Arvedson, Dave Mayo, Steve LaDochy, John Gamon, Paul Narguizian of CSU Los Angeles; Helen M. Cox, Gerry Simila, and Kenneth S. Berry of CSU Northridge. This team submitted a \$3 million education-oriented NASA REASoN grant, designed to produce inquiry-based teaching modules for K-12 education focused on natural hazards. *Not Funded*.
- **Co-PI** with Drs. Christopher Lee, Christine M. Rodrigue, Paul Laris, and *Laura Henriques* (Science Education), also with Drs. Dar Roberts, Max Moritz, Rick Church, Charles Jones, and Phaedon Kyriakidis and Mr. Phil Dennison of UC Santa Barbara. Integration and Management of Applications and Geospatial Education (IMAGE). Grant proposal to the NASA REASoN Cooperative Agreement Notice solicitation.) \$2,900,582. *Not Funded*.
- **Co-PI** on National; Science Foundation (NSF) Research Experience for Undergraduates. Grant would facilitate research related to field work, remote sensing and GIS research. *Not Funded*.
- Academic Computing Services Software Development Assistance Grant Pre-Proposal, "Computation of Slope from Digital Elevation Models [DEMs]: Algorithm Assessment", submitted February 1, 2002. Preproposal approved, *Not Funded*.
- Prepared a proposal for funding earmarked for Sea Otter Marine Habitat Protection from the Coast and Geodetic Survey, "Proposal for Sea Otter GIS Pilot Project – Mapping Essential Habitat of Southern Sea Otter", \$300,237.68. *Not Funded*.

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PUBLICATIONS AND CONFERENCE PROCEEDINGS PRIOR TO CSULB

- Wechsler, S., Digital Elevation Model (DEM) Uncertainty: Evaluation and Effect on Topographic Parameters, *ESRI User Conference 1999 Proceedings*, San Diego, CA, July, 1999.
- Wechsler, S., *Effect of DEM Uncertainty on Topographic Parameters, DEM Scale and Terrain Evaluation*, State University of New York College of Environmental Science and Forestry, Syracuse, NY. Thesis submitted in partial fulfillment of the requirement for the Ph.D. degree, May, 2000.
- Wechsler, S., A Methodology for Digital Elevation Model (DEM) Uncertainty Evaluation: The Effect DEM Uncertainty on Topographic Parameters, *Urban and Regional Information Systems Association Annual Conference Proceedings*, Chicago, IL, August, 1999.
- Wechsler, S., Digital Elevation Model (DEM) Uncertainty: Evaluation and Effect on Topographic Parameters, *ESRI User Conference 1999 Proceedings*, San Diego, CA, July, 1999.
- Alpert, L., Guzman, R., Miller, B., Solan, J., Wechsler, S., and Whiffen H., (1996), *Northern Forest Lands Inventory in Print: A Cartographic & Data Analysis Demonstration for New York*, Laboratory for Applied GIS (LAGIS), SUNY College of Environmental Science and Forestry, Syracuse, NY 13210.
- Perlitsch, S., J. McDonnell, H. Green, B. Hill, D. Borchert and S. Marino, (1996), A comparison of measured and modeled water flow and quality from three suburban catchments. In: McDonnell, J.J., D. Leopold, B. Neville, S. Stribling (eds). *New York City Water Supply Studies*. American Water Resources Association, pp. 49-60.
- Borchert, D., S. Marino, S. Perlitsch, H. Green and J. McDonnell, (1996), Testing the effectiveness of BMP's using urban stormwater models: Project overview. In: McDonnell, J.J., D. Leopold, B. Neville, S. Stribling (eds). *New York City Water Supply Studies*. American Water Resources Association, pp. 37-48.
- Borchert, D., Marino, S., Wechsler, S., Green, H., McDonnell, J., "Evaluation of Non-Point Source Removal By Best Management Practices", *AWRA Symposium Proceedings: Watershed Restoration Management Physical, Chemical, and Biological Considerations*, July, 1996.
- Wechsler, S., Green, H., Hill, B., Deskins, A., McDonnell, J., Borchert, D., Marino, S., "Measuring and Modeling Urban Stormwater Runoff, Suspended Sediment, and Nutrient Loading in Westchester County: Preliminary Results," *AWRA Symposium Proceedings: Watershed Restoration Management Physical, Chemical, and Biological Considerations*, July, 1996.
- Wechsler, S., Green, H., Hill, B., Deskins, A., Bernsten, E., McDonnell, J., (1996), "Evaluation of Nonpoint Source Removal By Best Management Practices: Sixth Quarterly Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- Green, H., Wechsler, S., Deskins, A., Hill, B., Bernsten, E., McDonnell, J., (1996), "Evaluation of Nonpoint Source Removal By Best Management Practices: Fifth Quarterly Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- McDonnell, J., Wechsler, S., Green, H., Hill, B., McShea, T., (1996), "Evaluation of Nonpoint Source Removal By Best Management Practices: Annual Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- Hill, B., J.J. McDonnell, H. Green and S. Wechsler, (1996), Using SWMM to test parameter variations on a low-density residential watershed. *EOS Transactions*, American Geophysical Union 77(46):F282.
- Green, H., J.J. McDonnell, D. Borchert, B. Hill, S. Wechsler, A. Deskins and E. Bernsten, (1996). Event variability in urban runoff quantity and quality and its implications for model calibration and validation. *EOS Transactions*, American Geophysical Union 77(46):F282.
- McDonnell, J., Wechsler, S., Green, H., Hill, B., McShea, T., (1995), "Evaluation of Nonpoint Source Removal By Best Management Practices: Third Quarter Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- McDonnell, J., Wechsler, S., Green, H. (1995), "Evaluation of Nonpoint Source Removal By Best Management Practices: Second Quarter Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- McDonnell, J., Perlitsch, S., Green, H. (1995) "Evaluation of Nonpoint Source Removal By Best Management Practices: First Quarter Report," *New York City Department of Environmental Protection, Bureau of Water Supply*.
- Perlitsch, S., (1995), *Integration of GIS Data with the Agricultural Nonpoint Source pollution Model (AGNPS): The Effect of Cell Size Resolution and Soils Data Sources on Model Output*, State

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University of New York College of Environmental Science and Forestry, Syracuse, NY. Thesis submitted in partial fulfillment of the requirement for the MS degree, January, 1995.

Perlitsh, S., (1995), "Integration of GIS with the Agricultural Non-point Source Pollution Model: The Effect of Resolution and Soils Data Sources on Model Input and Output" *Environmental Protection Agency: National Conference on Environmental Problem Solving With Geographic Information*, EPA Document 625/R-95/004.

Perlitsh, S., "A Watershed Event" *Central New York Environment*, July 14, 1994.

Black, P. E., and Perlitsh, S., "Innovative Ideas in Water Resources Education" *AWRA Proceedings: Water Resources Education: A Lifetime of Learning and Changing Roles in Water Resources Management and Policy*, June, 1993.

Perlitsh, S., (1992), "Water-Related Courses Offered At Universities and Colleges in New York State - 1991," Report Prepared For the New York State Soil And Water Conservation Committee, Department of Agriculture and Markets.

Perlitsh, S., (1992), "Non-Credit Instructional Activities Offered At State University of New York Institutions - 1991," Report Prepared For the New York State Soil And Water Conservation Committee, Department of Agriculture and Markets.

CONFERENCE PRESENTATIONS PRIOR TO CSULB

- "A Methodology for Digital Elevation Model (DEM) Uncertainty Evaluation: The Effect DEM Uncertainty on Topographic Parameters", *Urban and Regional Information Systems Association Annual Conference*, Chicago, IL, August 1999.
- "Digital Elevation Model (DEM) Uncertainty: Evaluation and Effect on Topographic Parameters", *ESRI User Conference*, San Diego, CA, July 1999.
- "The Effect of Uncertainty on Topographic Parameters and DEM Scale", *American Geophysical Union Fall Meeting*, San Francisco, CA, 1998.
- "Measuring and Modeling Urban Stormwater Runoff, Suspended Sediment and Nutrient Loading in Westchester County: Preliminary Results", With H. Green, B. Hill, A. Deskins, J. McDonnell, D. Borchert, and S. Marino, *Watershed Restoration Management: Physical, Chemical and Biological Considerations*, American Water Resources Association, Syracuse, NY, 1996.
- "Integration of GIS with the Agricultural Nonpoint Source Pollution Model: The Effect of Resolution and Soils Data Sources on Model Input and Output", *EPA National Conference on Environmental Problem Solving with GIS*, Cincinnati, OH, 1994.
- "Innovative Ideas in Water Resources Education", with Dr. Peter. Black, *Water Resources Education: A Lifetime of Learning and Changing Roles in Water Resources Management and Policy*, American Water Resources Association, Seattle, WA 1993.

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INSTRUCTION & INSTRUCTION-RELATED ACTIVITIES

Courses Taught

Fall 2007

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment 22]
Geography 492 – Internship in Applied Geography [enrollment: 5]
Geography 497 – Directed Studies [enrollment: 3]
Geography 697 – Directed Research [enrollment 2]
Geography 698 – Thesis [enrollment: 1]

Spring 2007

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment 22]
Geography 492 – Internship in Applied Geography [enrollment: 5]
Geography 497 – Directed Studies [enrollment: 3]
Geography 697 – Directed Research [enrollment 2]
Geography 698 – Thesis [enrollment: 1]

Fall 2006 (Sabbatical)

Spring 2006

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment xx]
Geography 487A/587A – Applications of GIS: Natural Resource & Environment [enrollment: xx]
Geography 492 – Internship in Applied Geography [enrollment: xx]

Fall 2005

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment 22]
Geography 492 – Internship in Applied Geography [enrollment: 5]
Geography 497 – Directed Studies [enrollment: 3]
Geography 697 – Directed Research [enrollment 2]
Geography 698 – Thesis [enrollment: 1]

Spring 2005 – WTU 21

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment 23]
Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 13]
Geography 492 – Internship in Applied Geography [enrollment: 6]
Geography 697 – Directed Research [enrollment 1]
Geography 698 – Thesis [enrollment: 2]

Fall 2004 – WTU: 17.0 (plus 6 thesis units attributed to another faculty member)

Geography 481 – Geographic Information Systems for Natural Sciences [enrollment 11]
Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 15]
Geography 492 – Internship in Applied Geography [enrollment: 8]
Geography 497 – Directed Studies [enrollment: 2]
Geography 640 – Seminar in Physical Geography [enrollment 5]
Geography 697 – Directed Research [enrollment 2]
Geography 698 – Thesis [enrollment: 1]

Spring 2004 – WTU: 11.8

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 13]
Geography 487A/587A – Applications of GIS: Natural Resource & Environment [enrollment: 19]
Geography 492 – Internship in Applied Geography [enrollment: 9]
Geography 497 – Directed Studies [enrollment: 1]

Fall 2003 – WTU: 16.7

Geography 140 – Introduction to Physical Geography UHP Section [enrollment: 8]
Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 20]
Geography 492 – Internship in Applied Geography [enrollment: 11]
Geography 497 – Directed Studies [enrollment: 4]
Geography 697 – Directed Research [enrollment 4]
Geography 698 – Thesis [enrollment: 1]

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Spring 2003 – WTU: 10.3

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 25]

Geography 640 – Seminar in Physical Geography [enrollment: 15]

Geography 698 – Thesis [enrollment: 2]

Geography 492 – Internship in Applied Geography [cancelled]

Fall 2002 – WTU: 14.5

Geography 140 – Introduction to Physical Geography [enrollment: 35]

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 20]

Geography 492 – Internship in Applied Geography [enrollment: 14]

Geography 497 – Directed Studies [enrollment: 3]

Geography 698 – Thesis [enrollment: 2]

Spring 2002 – WTU: 14.5

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 25]

Geography 488/588 – Geographic Information Systems [enrollment: 20]

Geography 492 – Internship in Applied Geography [enrollment: approx 5]

Geography 698 – Thesis [enrollment: 2]

Fall 2001 – WTU: 14.2

Geography 140 – Introduction to Physical Geography [enrollment: 35]

Geography 640 – Seminar In Physical Geography [enrollment: 7]

Geography 492 – Internship in Applied Geography [enrollment: 12]

Geography 497 – Directed Studies [enrollment: 1]

Geography 698 – Thesis [enrollment: 2]

Spring 2001 – WTU: 15.2

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 25]

Geography 440/540 – Land and Water Environments [enrollment: 13]

Geography 492 – Internship in Applied Geography [enrollment: 8]

Geography 497 – Directed Studies [enrollment: 3]

Geography 697 – Directed Studies [enrollment: 2]

Geography 698 – Thesis [enrollment: 1]

Fall 2000 – WTU: 13.5

Geography 485/585 – Introduction to Geographic Information Systems [enrollment: 20]

Geography 140 – Introduction to Physical Geography [enrollment: 36]

Geography 492 – Internship in Applied Geography [enrollment: 6]

Geography 497 – Directed Studies [enrollment: 1]

Geography 698 – Thesis [enrollment: 1]

Thesis Committees

In Progress

Chair: Zoe Schumacher, Assessment of HAZUS as a Decision Support System, in progress.

Chair: Andy Reeder, WaterQuality Assessment in Lake Barbara, in progress.

Chair: Cesar Espinosa, Interpolation and Feature Extraction Assessment using LiDAR, in progress.

Chair: Jennifer Cochran, analysis of nonpoint source pollution in Lake Barbara, in progress.

Chair: Josi Jenneskens, analysis of bobcat habitat in the Laguna Wilderness, in progress.

Chair: Brian Sims, Viewshed Accuracy in Urban Environments Using LiDAR Data, in progress.

3rd Reader: Sue Timm, Remote Sensing of the Laguna Wilderness, in progress.

3rd Reader: Penny Black, Health Sciences. GIS Evaluation of Alcohol Outlets, in progress.

Completed

Chair: Kathy Moriarty, "Historical Vegetation Patterns in Crystal Cove State Park". Completed 2006.

3rd Reader: Nicole Pletka, Archaeology. Late Holocene Gabrielino Settlement Patterns in the Newport Coast Area of California: A Geographic Information Systems Based Approach, Completed 2006

Chair: Greg Bishop, groundwater analysis, reporting and monitoring system, Completed 2005

Chair: Lisa Pitts, "GIS in K-12 Education". Completed 2005.

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Chair: Susanne Byrne-Dronkers, "Assessment of the role of two-year academic institutions in Geographic Information Systems/Science (GIS)". Completed 2002.

Chair: Naovaratana Subthanavin. "Evaluation of the effect of Deforestation on Flow Data in Northern Thailand". Completed 2001.

2nd Reader: Dan Hofer "Application of GIS to the creation of the Silverado Fire Plan". Completed 2004.

3rd Reader: Beckie Boulton completed December 2003.

3rd Reader: Erin Stockenberg "The effect of spatial, spectral, and radiometric resolutions on the accuracy of landcover classification" completed Summer 2003

3rd Reader: Candace McGowan, Interdisciplinary Studies, "The Geographic Distribution of Human Mitochondrial DNA Polymorphisms". Completed.

Instruction-Related Activities

- Developed five new courses: 280: Introduction to geospatial techniques, 443/543: Watershed Processes, 487A/587A: Applications of Geographic Information Science: Natural Resource & Environments and 487B/587B Applications of Geographic Information Science: Urban & Economic, and Geography 481: GIS for Natural Sciences. Currently redeveloping Geography 485 (originally Introduction to GIS, now Principles of GIS). Requires recreation of lab materials and integration of a new software interface.
- 1-Day short course on Global Positioning Systems for the California Geographical Society Conference, Long Beach, April 2004.
- 2-Day short course on "Understanding GIS" for the CSULB Extension Certificate in Cartography and GIS, January/February 2004.
- 2-Day short course on "Problem Solving with GIS" for the CSULB Extension Certificate in Cartography and GIS, March 2003.
- 2-Day short course on "Environment and Natural Resource Applications of GIS" for the CSULB Extension Certificate in Cartography and GIS, July 2002.
- Attended the MATE [Marine Technology] Summer Institute on Marine Applications of GIS, August 2002, Monterrey, CA. NSF funded five-day program with competitive selection of participants.
- Initiated and continuing collaboration with Drs. Christopher Lowe [Biology] and Maria-Teresa Ramirez [Geology] to develop a "GIS for Natural Sciences" course. We met weekly during Spring 2002 to draft an Enhancing Educational Effectiveness (EEE) proposal. Received Fall 2002 release time.
- Guest Lecture "What Is GIS?" to Dr. Wegner's Facilities Management Course, March 2000 and November 2001, March 2002.
- 1-day "Introduction to GIS Course" for CSULB faculty, Inspired Insight, November 10, 2001.

INVITED SPEAKER

- American Water Resources Association (AWRA) Southern California Section, CSULB, April 10, 2002, "Geographic Information Systems and Water Resources Current Concerns: Technical Issues"
- GIS Expo, Cal Poly, Pomona, May 10, 2001. "GIS and Remote Sensing at California State University Long Beach: By Example."
- Emeritus Faculty Lunch, CSULB, April 20, 2001. "Spatial Hydrology".

SUZANNE PERLITSH WECHSLER

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SERVICE

Department of Geography

- Member of the following Committees: Budget, Department RTP. Fall 2007 to present.
- Director, Certificate in Geospatial Techniques. Fall 2006 to present.
- Director, Internship in Applied Geography Program, Fall 2000 to present.
- Speaker Coordinator, Jobs In Geography Series of Talks (ongoing).
- Member of the following committees (2001 to 2007): Curriculum Subcommittee, Budget Committee, Geotechniques Certificate and Laboratories Subcommittee, UCES GIS Certificate Subcommittee, Awards Committee, Chair, Curriculum Committee (Spring 2001 to Spring 2002), Chair, Geography Awareness Week Committee, (Fall 2000).
- Initiated conversion of LA4-100 to a "Smart Room", (completed January 2002).
- Search Committees for the following positions: Chair of Search Committee for the Cartography position (fall 2006), Member Cultural/Landscape Ecology and Environmental Geography (spring 2002), Member 3-semester Physical Geography position (spring 2001), Member, GIS Lab Manager (spring 2001).

College of Liberal Arts

- CLA Faculty Council Representative (2001-2003, Fall 2005, Fall 2007)

University Service

- Director, UCES GIS Certificate Program. Responsible for Instructor staffing, class scheduling and module instruction, Fall 2002 to present.
- President, CSULB Chapter of Sigma Xi, the Scientific Research Society, 2006 to present. Vice President, 2003 to 2006.
- Chair, CSU GIS Articulation Committee, Elected by CSU GIS Specialty Center members, July 2002.
- Co-Advisor, Golden Key National Honor Society, open to Juniors and Seniors with a 3.4 CSULB GPA. Chapter received the Most Improved Chapter Award, an international honor. In March 2001 our chapter hosted the Western Regional Conference for 22 College chapters. (2000 through 2003)
- Member, Environmental Science and Policy Program faculty.

Service to the Discipline

- Elected Board Member of the California Geographical Society, 3-year term (2002-2005).
- Member, Urban Regional Information Systems Association (URISA) GIS Certification Committee, (2000 to present), Member of Education Triad Sub-Committee.
- Founding Member, Southern California Section, American Water Resources Association (AWRA) (2000-present).

Manuscript Reviews

- Photogrammetric Engineering and Remote Sensing [3 reviews]
- Computers and Geosciences [1 review]
- ASCE Journal of Hydrologic Engineering [1 review]

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PROFESSIONAL EXPERIENCE

| | |
|---|-----------------|
| <u>California State University Long Beach</u> , Long Beach, CA. <i>Assistant Professor</i> . Activities related to teaching research and service. | 8/00 to present |
| <u>Trout Unlimited</u> , Wethersfield, CT. <i>GIS Consultant</i> . Researched GIS data availability and quality for the Beaverkill and Willowemoc watersheds. Acquired and generated GIS data, conducted GIS and hydrologic analyses. Contacts yield employment to Geography Department students to provide research and cartographic assistance. | 10/95 to 8/01 |
| <u>SoluTech Consulting</u> , Irvine, CA. <i>GIS Analyst and Consultant</i> . Provided GIS assistance for groundwater and soil contamination mapping and modeling projects. | 10/99 to 6/00 |
| <u>California State University Long Beach</u> , Long Beach, CA. <i>Part-Time Faculty</i> . Developed and taught lectures and laboratory assignments for Introduction to GIS. | 8/99 to 5/00 |
| <u>Ph.D. Dissertation Research</u> , Newport Beach, CA. <i>Ph.D. Candidate</i> . Developed a methodology to evaluate DEM uncertainty using Monte Carlo simulation techniques. Programmed methodology in ArcView Spatial Analyst using Avenue. Applied methodology to evaluate the effect of DEM uncertainty on topographic parameters. | 6/97 5/00 |
| <u>United States Forest Service</u> , Syracuse, NY. <i>GIS Consultant</i> . Generated input parameters for the Hydrologic Simulation Program Fortran (HSPF) from GIS data. | 6/97 to 10/97 |
| <u>United States Geological Survey</u> , Montpelier, VT. <i>Field Assistant</i> . Collected soil depth samples using a knocking pole penetrometer, assisted in collection of well data for a snow hydrology research project. | 1/97 |
| <u>New York City Department of Environmental Protection</u> , Valhalla, NY. <i>Project Manager</i> . Implemented an urban stormwater monitoring and modeling project. Created GIS site maps and generated model input parameters. Contributed to calibration and validation of stormwater models including: SWMM, SLAMM, P8, STORM and The Simple Method. Purchased and installed monitoring equipment including ISCO samplers, Unidata data loggers, pressure transducers, rain gages and RH/temperature sensors. Principal author or editor of eight quarterly reports. | 1/95 to 1/97 |
| <u>American Water Resources Association</u> , Syracuse, NY. <i>Executive Assistant</i> . Assisted program director with technical session planning, arranged planning meetings, reviewed correspondence and edited materials. | 1/95 to 7/96 |
| <u>Laboratory for Applied GIS</u> , Syracuse, NY. <i>Project Staff</i> . Generated hydrography maps for 14 New York counties. | 6/95 to 12/96 |
| <u>SUNY-ESF, Department of Forestry</u> , Syracuse, NY. <i>Teaching Assistant</i> . Aided professors with: Process Hydrology, Watershed Hydrology and Water Quality, Forest Hydrology, Environmental Impact Analysis, and Soil and Water Conservation Policy. Responsibilities included lecturing, grading and teaching laboratory sessions. | 8/92 to 5/94 |
| <u>SUNY-ESF, Northern Forest Lands Inventory</u> , Syracuse, NY. <i>Research Assistant</i> . Developed procedures for reviewing hydrography GIS data. Edited data. | 6/93 to 12/93 |
| <u>SUNY-ESF, Department of Continuing Education</u> , Syracuse, NY. <i>Teaching Assistant</i> . Developed teaching materials for an Introduction to Arc/Info Short Course. | 6/93 |
| <u>New York State Soil and Water Conservation Committee</u> , Albany, NY. <i>Consultant</i> . Developed a database of college-level water-related courses in New York State. | 5/92 to 11/92 |
| <u>Massachusetts Water Resources Authority</u> , Charlestown, MA, <i>Program Intern</i> . Program start-up and budget analysis for a domestic water conservation program through the Resource Conservation and Management Department. Edited program documentation and drafted the quality control plan and contract. | 5/90 to 8/91 |
| <u>Massachusetts Department of Environmental Protection</u> , Boston, MA, <i>Intern</i> , Divisions of Water Supply and Solid Waste. Evaluated underground storage tank data for a GIS | 10/89 to 5/90 |

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project in the Water Supply Contamination Correction Program and edited the MA Solid Waste Management Facility Guidance Document.