

CURRICULUM VITAE

Southern Connecticut State University

NAME: Graves, Scott, Michael

DATE: November 2007

RANK OR TITLE: Assistant Professor: Science Education and Environmental Studies

DEPARTMENT: Environmental Studies and Science Education

OFFICE LOCATION AND CAMPUS:

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DATE OF FIRST EMPLOYMENT AT SOUTHERN CT: August 2004

DATE OF TENURE: TENURE TRACK

EDUCATION BEYOND HIGH SCHOOL:

Ph.D. (Major: Teacher Education; Science/Technology Education), University of Idaho, 1999

M.S. (Major: Oceanography; Marine Geology & Geophysics), 1990,

Graduate School of Oceanography, University of Rhode Island.

B.S. (Major: Earth Science, Geology), 1983, University of California at Santa Cruz.

A.S. (Major: Earth Science, Geology). 1981, Santa Barbara City College.

Certificate: Geosciences Technology & Scientific Illustration, SBCC, 1981

EXPERIENCE:

Teaching, Extension and Research Appointments: (List position titles and locations since receipt of Bachelor's degree)

Teaching and Research: Instruction / Instructional Design:

2004-present, *Assistant Professor*, Environmental Studies and Science Education, SCSU

2005-present, Instructor, Curriculum Workshop Environmental Education, EVE 546

2005-present, Instructor, Environmental Science II, ENV 301

2004-present, Instructor, Science Education – Secondary Schools, EDU 493

2004-present, Instructor, Soc. Sci Perspectives on Environment, ENV 400

2004-present, Instructor, Curriculum Materials in Environmental Education, EVE 545

2004-present, Instructor, ISIS Program ISIS X

2004-present, Instructor/Supervision, Seminar in Student Teaching, EDU 452/453

1999-present, *Assistant Professor*, College of Education, University of Idaho

2001-present, *Co-Investigator /Idaho PI*, EDPARC/UMAC Project, University of Idaho

1999-present, *Co-Director*, Lewis & Clark Rediscovery Project (LCRP), project co-management, content and strategies design and development, online courses & workshops, University of Idaho, College of Education, Moscow, ID

2001-present, *Co-Investigator*, Life-Long Learning Project (L³), project advisory, content design & development, University of Idaho, College of Education, Moscow, ID.

2001-present, *Co-Investigator*, National Center for Online Learning Research (NCOLR), science/technology andragogy, University of Idaho, College of Education, Moscow, ID.

2001-present, *Co-Investigator*, Idaho Virtual Campus (IVC), content design and facilitation, Earth Systems Science/Technology-infusion and teacher professional development, IMITS, University of Idaho, College of Education, Moscow, ID.

2001-present, *Co-Investigator*, Earth Systems Science (ESS), project content development, online course facilitation, University of Idaho, College of Education, Moscow, ID.

2001, *Co-Instructor*, Teacher as Researcher (LCRP:IMITS), content co-design & online facilitation, University of Idaho, College of Education, Moscow, ID.

1997-present, *Co-Instructor*, Ed 328, Educational Technology, University of Idaho, College of Education, Moscow, ID.

1997-present, *Co-Instructor/co-Instructor*, Inter 103, Integrated Science for Elementary Education Majors, University of Idaho, Letters and Science, Moscow, ID.

1997-99, *Undergraduate Instructor*, Ed 477, Secondary School Science Methods, University of Idaho, College of Education, Moscow, ID.

1997-present, *Co-Instructor*, Ed 444, Elementary School Science Methods, University of Idaho, College of Education, Moscow, ID.

Teaching and Research: Instruction / Design: continued

- 1998, *Instructor*, 6th grade Environmental Camp, Wood River School District, Ketchum, ID.
 1995-96, *Projects Development Director, Instructor*, Outdoor Education Programs, Hemingway Learning Institute, Ketchum, ID.
 1991-95, *Substitute Teacher*, Technology, Physics, Biology, Wood River High School, Hailey, ID.
 1991, *Substitute Teacher*, Biology, Ecology, The Community School, Sun Valley, ID.
 1991, *Instructor*, Gel 100, Introductory Geology, Department of Geology, University of Rhode Island, Kingston RI.
 1989-90, *Lab Instructor*, Historical Geology, Department of Geology, University of Rhode Island, Kingston RI.
 1989-90, *Lab Instructor*, Introductory Geology, Department of Geology, University of Rhode Island, Kingston RI.

Research:

- 2001-present, *Co-Investigator*, National Center for Online Learning & Research (NCOLR), University of Idaho, College of Education, Moscow, ID.
 2001, *Co-Investigator*, Technology Learning Group, Evaluation of School District Technology Planning / Implementation Plans, Region I/II, ID.
 1997-1999, *Research and Teaching Fellow*, Idaho Space Grant Consortium, University of Idaho, College of Education, Moscow, ID.
 1988-89, *Research Assistant/Fellow*, <joint appointment> Rhode Island Sea Grant Consortium, Department of Geology/ Graduate School of Oceanography, University of Rhode Island, Kingston, RI, Geologic Hazards, Glaciology, Geomorphology, Coastal Zone Dynamics, Beach/shoreline Surveys, Aerial image analysis, CADD, Programming.
 1986-88, *Research Assistant*, University of Rhode Island, Graduate School of Oceanography, Narragansett, RI, Sedimentology, Oceanography, Coastal Zone Dynamics, Beach/shoreline Surveys, Aerial image analysis, Programming.
 1985-86, *Oceanographer*, US Geological Survey, Branch of Pacific Marine Geology, Menlo Park, CA, Arctic Coastal Processes, geomorphology, coastal erosion, marine geophysical: seismic, imaging sonar mapping, aerial and satellite image analysis, sedimentology and sea ice processes.
 1984-85, *Marine Geologist*, US Geological Survey, Branch of Pacific Marine Geology, Menlo Park, CA, Arctic Coastal Processes, geomorphology, coastal erosion, marine geophysical: seismic, imaging sonar mapping, aerial and satellite image, analysis, sedimentology and sea ice processes.
 1983-84, *Geologic Field Assistant*, US Geological Survey, Branch of Pacific Marine Geology, Menlo Park, CA, Arctic Coastal Processes, geomorphology.
 1979-81, *Field Assistant*, Santa Barbara City College / Scripps Institute of Oceanography, Coastal Processes, geomorphology, coastal erosion, Beach Profile/surveys

Academic Administrative Appointments: (List position titles and locations since receipt of Bachelor's degree)
Project Co-Director, University co-Principle Investigator: Lewis & Clark Rediscovery Projects

Consulting: (List company/institute name, title, brief description, date)
 Ecoguild, Inc., Ketchum/Moscow, ID *Program Development Director*, Vocational Rehab-Training, Education, Science and Technology Professional Development, Training Consultant, 1990-present
 Hemingway Learning Institute, *Program Development Director*, 1995-96
 TREE Inc., Boise, ID, *Science/Technology Education Program Director*, 1993-94
 Earth Surface Research, Kingston, RI *Consulting Geologist*, Field Research Director, 1990-91

TEACHING ACCOMPLISHMENTS: (Academic and Extension teaching)

Areas of Specialization: Environmental Studies, Earth Sciences, Science & Technology Education

Courses Taught: (title, course number, dates) – *Southern Connecticut State University*

- Science Education: Secondary Methods: EDU 493, Fall and Spring Semesters, 2004-present
 Science Education: Seminar in Science Teaching: EDU 453, Fall and Spring Semesters, 2004-present
 Science Education: Student Teaching Supervision: EDU 452, Fall & Spring Semesters, 2004-present

Teaching Accomplishments: Courses Taught: continued

Science Education: Integrated Science: SCE 575, Spring Semesters, 2006-present
 Science Education: Educational Technologies: SCE 573, Fall Semesters, 2004-present
 Science Education: ISIS: SCE 600s, Fall, Spring, Summer Semesters, 2004-present
 Environmental Education: Teaching Methods: EVE 535, Spring Semester, 2007
 Environmental Education: Curriculum/Materials for Environmental Education, EVE 545, Fall 2004
 Environmental Education: Curriculum Writing Workshop for EE, EVE 546, Spring 2005
 Environmental Studies: Social Science Perspectives on the Environment, ENV 400, Fall 2004-present
 Environmental Studies: Environmental Science II: ENV 301, Spring Semesters, 2004, '05, '06
 Environmental Studies: Environmental Systems Inquiry, ENV 350, Spring Semesters, 2008- present
 Educational Technology: EDTE 501, Spring, Summer, Fall 2001, 2002, 2003, 2004

Courses Taught: (title, course number, dates) –*University of Idaho*

Models of Teaching: EDTE 524, Fall 2002, Spring 2003
 Earth Systems Science for Teachers On-line, EDTE 503, Fall 2002, Fall 2003
 Infusing Technology in Inquiry-based Curriculum Development: EDTE 504, Fall 2002 (multiple sections)
 Planning and Administering the Curriculum: EDTE 511, Fall 2003
 Lewis and Clark Rediscovery: Level I, EDTE 505, Fall 2002, Spring 2003, Spring 2003
 Lewis and Clark Rediscovery: Level III, EDTE 504/504, Spring 2003
 Integrating GIS/GPS Technologies into the Classroom, EDTE 504, Summer 2002, 2003 (3 sections)
 Exploring the Lewis and Clark Trail II, Prof Dev Workshop, EDTE 503, Summer 2002, 2004
 Infusing Technology in Inquiry-based Curriculum Development: EDTE 501, Spring 2002, 2003, 2004
 Teacher as Researcher / Qualitative Research Methods (LCRP), ED 583, Fall 2001, (2 sections)
 Exploring the Lewis and Clark Trail I, Prof Dev Workshop, EDTE 503, Summer 2001
 Infusing Technology in Inquiry-based Teaching II: EDTE 504, Spring 2001
 Lewis & Clark Corps of Rediscovery: Community Studies, EDTE 504, Fall, Spring 2000 - 2004
 Lewis & Clark Rediscovery, Corps Technologies: Instructional Technology, EDTE 504, Fall 2000
 Lewis and Clark Rediscovery Project, Prof Dev Workshop, EDTE 503, Summer 2000, 2003
 Lewis & Clark Rediscovery Project: Earth Systems Science On-line. ETE 503, Spring 2000
 Lewis & Clark Rediscovery Project: History for Anthropologists On-line. ETE 503, Spring 2000
 Lewis & Clark Rediscovery Project: GIS for Geographers On-line. ETE 503, Spring 2000
 Global Learning and Observations to Benefit the Environment, EDTE 503, 1996-'02, (each semester)
 43 workshops in locations across Idaho, regionally and nationally: Idaho: Moscow, Coeur d'Alene, Rathdrum, Rigby, Boise, Sun Valley/Ketchum, Idaho Falls, Twin Falls, Pine; Kamiah, Lewiston, Orofino, Washington: Kennewick, Oregon: Portland, Astoria, Montana: Great Falls, Missoula, Iowa: Council Bluffs, Missouri: St. Charles, Texas: Dallas, Florida: Orlando, Kissimmee-St. Cloud,
 Earth Systems Science for Teachers On-line, EDTE 503, 1999
 Elementary Science Methods, University of Idaho, Coeur d'Alene, EDTE 444, 1997-99
 Project Wild, EDTE 503, 1996-99 (each semester)
 Project Wet, EDTE 503, 1996-99 (each semester)
 Project Learning Tree, EDTE 503, 1996-99 (each semester)
 Educational Technology, University of Idaho, Moscow, ID, EDTE 328, 1997-99
 Earth Systems Science for Teachers On-line, EDTE 503, 1998
 Partnerships and Collaboratives in Education, EDTE 503, 1998
 Constructing Physics Understanding for Teachers, Rathdrum, Idaho, EDTE 503, 1997-98
 Trends and Issues in Education: Education Reform, EDTE 501, 1997-98
 Integrated Science, (NSF-fund initiated course development), INTER 103, 1996-98
 COTF Earth Systems Science On-line, EDTE 503, 1997
 Issues in Aerospace Education for K-12 Teachers, EDTE 503, 1997
 Hands-On Elementary Science, EDTE 503, 1997
 Elementary Science Methods (National Standards-based course), EDTE 444, 1996-97
 Secondary Science Methods (National Standards-based course). EDTE 477, 1996-97
 Idaho Science and Technology Education Project, EDTE 503, 1995
 Geology, GEL 101, University of Rhode Island, Kingston, RI, Associate Instructor, 1990-91

Students Advised:

Undergraduate Students: Elementary & Secondary Science Education Majors (25)
 Meghan Wilson, BS, Environmental Sciences

Graduate Students:

Served on graduate committee

Chad Gotch, MS: Natural Resources, University of Idaho 2002

L. Frank Vernon, MS. Educational Technology, University of Idaho, 2003

John Ophus, Ph.D. Education, University of Idaho 2004

Jason Abbitt, Ph.D. Education, University of Idaho 2004

Sean Wang, Ph.D., Education, University of Idaho 2004

Graduate Student Advisees: Elementary & Secondary Education (15)

Materials Developed: (non-scholarship activity)

Homepage Development Coordinator & webmaster:

2005-present, SCSU Department of Science Education & Environmental Studies

2001-present, Northern Rocky Mountain Educational Research Association: www.nrmera.org

2001-present, Idaho Science Teachers' Association: <http://www.uidaho.edu/~ista>

1999-present, Lewis & Clark Rediscovery Project: <http://rediscovery.ed.uidaho.edu>

1999, ECHO Project, Environmental Cultural and Historic Outlooks, Eastern Baltic

Landscapes, History, culture and Mythology <http://www.col-ed.org/echo/team-pages/id/>

1996-99, Science Methods: <http://ivc.uidaho.edu/courses/entrance/courses.html>

1996-99, Idaho Space Grant: <http://ivc.uidaho.edu/isgc/>

1996-99, National NOVA: <http://ivc.uidaho.edu/nova>

1996-99, Idaho NOVA: <http://ivc.uidaho.edu/nova>

1996-99, Idaho GLOBE Program: <http://globe.ed.uidaho.edu>

1996-99, IMITS: <http://ivc.uidaho.edu/imits>

1996-99, Idaho CPU: <http://ivc.uidaho.edu/imits/programs.shtml>

1998-99, Mathmentors: <http://ivc.uidaho.edu/mathmentors>

1998-99, Jasper Woodbury in Idaho (mathematics education): <http://ivc.uidaho.edu/jasper>

1996-99, Foreign Language Methods (FLES): <http://ivc.uidaho.edu/fles>

1998-99, Secondary Foreign Language Methods: <http://ivc.uidaho.edu/ed474>

1998-99, Social Studies Methods: <http://ivc.uidaho.edu/ed326>

1998, Reading in the Elementary School: <http://ivc.uidaho.edu/ed336>

1998-99, Idaho TIMSS Consortium website: <http://ivc.uidaho.edu/timss>

1994-99, Ecoguild: www.ecoguild.com

1995-99, TREE Inc.: www.treeseeds.org

1996-99, WCEI, Western States Threatened Streams Report. <http://www.wcei.org>

Courses Developed / Co-Developed:

Integrated Science Experiences / Environmental Systems, SCE 575, Spring 2006, 2007

Environmental Systems Inquiry: NASA NOVA funded course, ENV 398, Fall 2005

Light & Color and the Visible Spectrum: NSTA Science Object, 2003

Planning and Administering the Curriculum: EDTE 511, 2003

Lewis and Clark Rediscovery: Level III: EDTE 504, 2003

Lewis and Clark Rediscovery: Level II: EDTE 504, 2003

Lewis and Clark Rediscovery: Level I: EDTE 504, 2003

Astronomy for Educators: PH 103, 2003

Models of Teaching: EDTE 524, 2003

Infusing Technology in Inquiry-based Curriculum Development: EDTE 504, 2000-02

Lewis and Clark Rediscovery: Level I ESS/GIS/History, EDTE 505, 2002

Integrating GIS/GPS Technologies into the Classroom, EDTE 504, 2002

Exploring the Lewis and Clark Trail, Prof Dev Workshop, EDTE 503, 2000-02

Teacher as Researcher / Qualitative Research Methods (LCRP), ED 583, 2001,

Infusing Technology in Inquiry-based Teaching: EDTE 504, 2000-02

Lewis & Clark Rediscovery, Corps of Rediscovery: Community Studies, EDTE 504, 2000

Lewis & Clark Rediscovery, Corps Technologies: Instructional Technology, EDTE 504, 2000

Lewis & Clark Rediscovery Project: Earth Systems Science On-line. ETE 503, 2000

Lewis & Clark Rediscovery Project: History for Anthropologists On-line. ETE 503, 2000
 Lewis & Clark Rediscovery Project: GIS for Geographers On-line. ETE 503, 2000
 Global Learning and Observations to Benefit the Environment, EDTE 503, 1996-'02,
 Educational Technology, University of Idaho, EDTE 328, 1997-01
 Earth Systems Science for Teachers On-line, EDTE 503, 1998-'02
 Constructing Physics Understanding for Teachers, Rathdrum, Idaho, EDTE 503, 1997-98
 Trends and Issues in Education: Education Reform, EDTE 501, 1997-99
 Integrated Science, (NSF-fund initiated course development), INTER 103, 1996-99
 Elementary Science Methods (National Standards-based course), EDTE 444, 1996-98
 Secondary Science Methods (National Standards-based course), EDTE 477, 1996-98
 Geology, GEL 101, University of Rhode Island, Kingston, RI, Associate Instructor, 1990-91

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

Workshops (non-credit):

1997-99, Project NOVA, Creating Change in Higher Education, Moscow, Idaho, 1997;
 NASA AMES, Research Center, California; 1999.

Website Reviews:

1998, Global Information Infrastructure Awards, Judge: educational content/pedagogy.

SCHOLARSHIP ACCOMPLISHMENTS: (Including scholarship, teaching, learning, creativity, discovery, application/integration)

Publications, Exhibitions, Performances, Recitals:

Peer Reviewed / Evaluated: (i.e. books, book chaps., journals, proc., abstr., etc)

Journal Articles, Book Chapters, other Peer-Reviewed Works

Graves, S., 2003, "*Light & Color and the Visible Spectrum*" a Science Object for the National Science Teachers Association, Website for Teacher Professional Development

<http://learningcenter.nsta.org>. (NSTA Science Learning Objects prototype)

Graves, S., Odell, M., Ewers, T. and Ophus, J., 2004, *A Model for Reform in Teaching in Integrated Science: Promoting Scientific Literacy Among Undergraduate Non-Science Majors*, in Sunal, D., Wright, E. and Bland, J. [Eds}, *Research in Science Education – 2004 Volume: Reform in Undergraduate Science Teaching for the 21st Century (Chptr 27)*, Information Age Publishing Inc. – Est. Publication Spring 2004. ISBN 1-930608-85-3.

Klett, M. and Graves, S., 2003, "*Becoming a Professional*" Companion Website to Woolfolk, A. [Ed.], *Educational Psychology, 9th Edition*, 2003 Allyn & Bacon / Longman, Boston, MA & New York, NY.

Reimnitz, E., Graves, S.M., Barnes, P.W., 1988, *Map showing Beaufort Sea coastal erosion, sediment flux, shoreline evolution, and the erosional shelf profile*, US Geological Survey Miscellaneous Investigations Series Map I-1182G.

Barnes, P.W., Graves, S.M., and Reimnitz, E., 1987, *Beaufort Sea coastal currents: a divergence area near Barter Island, Alaska?*, in: Hamilton, T.D. and Galloway, J.P. (eds.), *Geological Studies in Alaska by the USGS during 1986*, USGS Circular 998, p. 139-142.

Reimnitz, E., Graves, S.M., Barnes, P.W., 1985, *Coastal Erosion, Shoreline Evolution, and the Beaufort Sea Sediment Flux*, US Geological Survey Open-file Report 85 -380.

Reimnitz, E., Barnes, P.W., Wolf, S.C., Graves, S.M., Kempema, E.W., Rearic, D.M., 1985, *Highlights from Recent Beaufort Sea Sedimentologic Investigations*, US Geological Survey Open-file Report 85-0502.

Graves, S.M., Reimnitz, E., Barnes, P.W., 1984, *A Summary of US Geological Survey Marine Geological Data Collected in the Beaufort Sea, Alaska; 1983*, US Geological Survey Open-file Report 84-117.

Abstracts and Proceedings: Papers Presented At Scholarly Meetings

Graves, S. and Klett M., 2007, Google Earth, NASA's Worldwind, and Dapple as Geospatial Tools for Earth and Environmental Inquiry, presented at NAAEE Annual Conference, Virginia Beach, VA.

Graves, S., 2007, *Hydrology Protocols and Geocaching along the Guadeloupe River, New Braunfels, TX*, GLOBE Program International Conference, August, 2007 (invited speaker & guide).

Graves, S., 2007, *Hydrology Protocols and Geocaching along the Guadeloupe River, New Braunfels, TX*, GLOBE Program International Planning Conference, March, 2007 (web-conference due to blizzard).

Scholarship Accomplishments: Publications: continued

- Graves, S., 2006, *Program Activities Proposal for International Partners*, GLOBE Program International Planning Conference, September, 2006.
- Klett, M. and Graves, S., 2007, Earth visualizations: Using Internet Mapping and Geospatial Tools for Teaching, presented at NSTA Annual Conference, St. Louis, MO.
- Graves, S., 2006, SCSU NOVA Project, Development and implementation of an Environmental Systems Inquiry course at Southern Connecticut State University, presented at NSTA Annual Conference, Anaheim, CA.
- Graves, S., Paone, M., Frumento, G., 2005, SCSU NOVA Project, "Environmental Systems Science Inquiry, Inquiry-based college course development for Gateway Community College and Southern Connecticut State University", presented at the National NOVA Leadership Development Conference, Fall 2005, Greenbelt MD – NASA Goddard Space Flight Center.
- Graves, S., Frumento, G and Paone, M., 2005, *SCSU NOVA Program Proposal*, NOVA Program Invitational Conference, Huntsville, AL, January, 2005.
- Graves, S., Klett, M., Badger, S., 2004, *Life-Long Learning: Lewis and Clark Rediscovery*, 2004 National Science Teachers Association Annual Conference, Atlanta, GA.
- Graves, S. and Klett, M., 2003, *Life-Long Learning: Lewis and Clark Rediscovery*, 2003 National Science Teachers Association Annual Conference, Philadelphia, PA.
- Klett, M., Badger, S. and Graves, S., 2003, *Life-Long Learning: Mars Discovery*, 2003 National Science Teachers Association Annual Conference, Philadelphia, PA.
- Dodds, J., Salisbury, J., and Graves, S., (2003) *Using GIS (Geographic Information systems) in Your Classroom*, Idaho Science Teachers Association, Regional. Idaho Falls, Idaho
- Klett, M. and Graves, S., (2003) *The McCall Outdoor Science School*, Idaho Science Teachers Association, Regional. Idaho Falls, Idaho
- Teasdale, J., Odell, M., Klett, M. D., Graves, S. (2003). *Lewis and Clark Rediscovery (LCRP)*, Idaho Science Teachers Association, Regional. Idaho Falls, Idaho
- Frey, R., Klett, M. D., Graves, S., Davis, A. (2003). Presenter, *Life-Long Learning: Lewis and Clark Rediscovery & Mission to Mars (LLL)*, National Education Computing Conference, National. Seattle, Washington
- Abbitt, J., Klett, M, and Graves, S.. 2002, *Redesigning a Course Using an Analysis of Technical Problems Encountered in an Online Technology Training Course*, 2002 E-Learn, World conference on E-Learning in Corporate, Government, Healthcare and Higher Education, Association for the Advancement of Computing in Education, Annual Conference, Montreal.
- Graves, S.M., Klett, M, Branting, S., Schlepp, J., Robertson, T., and Mapston, C. 2002, *Lewis & Clark Rediscovery Project*, 2002 National Science Teachers' Association, Annual Conference, in San Diego, CA.
- Odell M., Klett, M., Graves, S, M., 2002. *Science Teaching Misconceptions: Using Science Misconceptions to Teach Science*. Idaho Science Teachers Association, Hailey, Idaho
- Hollenhorst, S., Fizzel, G., Klett, M., Graves, S. (2002) Poster Presentation: *The McCall Outdoor Science School*. University Inn, Moscow, Idaho
- Teasdale, J., Badger, S., Klett, M. D., Graves, S. (2002). *Life-Long Learning: Mission to Mars (LLL)*, National Science Teachers Association, Regional. Portland, Oregon
- Ewers, T., Odell, M.R.L., Klett, M.D., Graves, S.M., Davis, J.C., Davis, A.D., Ophus, J., Thornhill, A. (2001). *The Status of K-12 Mathematics and Science in Idaho: Student Course taking Patterns and Teacher Certification*. Report to the Idaho State Department of Education.
- Graves, S.M. Branting, S. and Fisher, J. 2001, *GIS in Our Backyard: application of ArcView in the Lewis and Clark Rediscovery Project for Lewiston School District*, 2001 Intermountain GIS Users Conference, Northern Rockies Chapter of URISA in Boise, ID.
- Klett, M., Graves, S., Davis, A and Crawford, S., 2001, *ECHO Project: Watersheds*, NRMERA Annual Conference, Jackson Hole, WY.
- Graves, S.M. and Kearney, B., 2000, *The Lewis and Clark Rediscovery Project: Corps of Rediscovery, online collaboration*, a work-in-progress, AACE, WebNet Conference, San Antonio, TX.
- Graves, S.M., 2000, *Alternative Conceptions in Science and Science Teaching Efficacy*, NRMERA Annual Conference, Park City, UT.
- Kearney, R.J. and Graves, S.M., 2000, *The Lewis & Clark Rediscovery Project*, Proceedings of the Annual Conference of the National Lewis & Clark Bicentennial Council, Kansas City, MO.

Scholarship Accomplishments: Publications: continued

- Odell, M.R.L., Kennedy, T., and Graves, S., 2000, *The Idaho Virtual Classroom*, Idaho Science Teachers Association, Fall '99 conference, Idaho Falls, Idaho.
- Graves, S.M. and Davis, J., 1999, *VRML in Education: a user's perspective on potential for instruction and exploration*, AACE, EdMedia Conference, Seattle, WA.
- Odell, M., Kearney, B., Klett, M.D., Graves, S. (1998). *Idaho NOVA Project*. National Science Teachers Association, Las Vegas, Nevada
- Klett, M.D., Odell, M., Graves, S. (1998). *Raising Self-Confidence of Preservice Science Teachers with Clinical Experiences*. National Science Teachers Association, Boston, Massachusetts
- Odell, M.R.L., Kennedy, T., and Graves, S., 1999, *The Idaho Virtual Classroom*, Idaho Science Teachers Association, Fall '98 conference, Boise, Idaho.
- Odell, M.R.L., Kennedy, T., and Graves, S., 1998, *The Idaho GLOBE Program*. Idaho Science Teachers Association, Fall '98 conference, Boise, Idaho.
- Kennedy, T.J., Odell, M.R.L., and Graves, S., 1997. *The Idaho GLOBE Program*. Second International GLOBE Conference, Airlie, Virginia.
- Odell, M.R.L., Klett, M.D., and Graves, S., 1997, *The Idaho Virtual Classroom*. in *World Wide Web as a Medium of Instruction. What works, What doesn't. Proceedings of the Learning Technologies Conference*. Dryden Flight Research Center Publication. pp. 63-72.
- Odell, M.R.L., Kearney, R., Klett, M. Kennedy, T. and Graves, S. 1998. *Idaho Science Technology Education Project*, NSTA National Convention, Las Vegas, Nevada.
- Odell, M.R.L., Kearney, R., Klett, M. and Graves, S. 1998. *Idaho NOVA Project*, NSTA National Convention, Las Vegas, Nevada.
- Paschall, D. and Graves, 1994, *EarthTime Project*, Alliance for Environmental Education, Annual Conference, Alexandria, VA.
- Paschall, D. and Graves, S., 1993 *EarthTime Project*, North American Association for Environmental Education, Annual Conference, Big Sky, MT
- Graves, S., 1993 *EarthTime Project*, Regional Meeting on Sustainable Human Development in Central America, Guatemala City, Guatemala.
- Graves, Scot M., 1991, *Morphotomology of Rhode Island Barrier Shores*, [abs.]: Geological Society of America, Abstracts with Program, Northeastern/Southeastern Annual meeting, Baltimore, MD, p. 16.
- Boothroyd, J.C., Galagan, C.W, Graves, S.M., and Newcomer, D, 1991, *Use of Computer-Generated Maps and Cross-sections to Analyze Coastal-Zone Management Problems Related to Accelerated Sea-Level Rise in Rhode Island*, (abs.): Geological Society of America, Abstracts with Program, Northeastern/Southeastern Annual meeting, Baltimore, MD, p. 16.
- Galagan, C.W., Graves, S.M., and Boothroyd, J.C., 1989, *Retreat of the southern Rhode Island shoreline, 1938-1985*, (abs.): Geological Society of America, Abstracts with Program, Northeastern Annual meeting, NJ, p. 16.
- Reimnitz, E., Wolf, S.C., Barnes, P.W., Graves, S.M., 1985, *Holocene Transgression and the Eroding Arctic Shelf Profile*, Abstr. w/ Prog., GSA 98th meeting, Orlando, FL, October 1985.
- Reimnitz, E. Graves, S.M., Barnes, P.W., 1985, *The Eroding Coast, Sediment Supply, and Sediment Sinks of the Alaskan Beaufort Sea*, Abstr. 14th Arctic Workshop, November 1985, Nova Scotia.
- Galagan, C.W., Graves, S.M., and Boothroyd, J.C., 1989, *Retreat of the southern Rhode Island shoreline, 1938-1985*, (abs.): Geological Society of America, Abstracts with Program, Northeastern Annual meeting, NJ, p. 16.

Books/Curricula:

- Paschall, J.D., Burrell, JB, Graves, S.M., 1993, *EarthTime, an environmental education program for secondary schools*, Tides Foundation/EarthTime Project, 350p.

Technical Reports:

- Odell, Kennedy, Klett, Graves, and others, 2001, *Evaluation of District Technology Plans: Kellog, Wallace, Silver Valley, Idaho Public School System*, Technology Learning Group, Moscow, ID.
- Graves, S.M., 1999, *Alternative Conceptions in Science and Science Teaching Efficacy: Remediating Preservice Teachers' Alternative Conceptions and their effect on Science Teaching Efficacy and Reflective Judgment.*, (Unpublished Doctoral Dissertation): College of Graduate Studies, University of Idaho, Moscow, ID, 172 p.

- Boothroyd, J.C., Graves, S.M., Newcomer, D. and Peterson, K.A., 1992, *Feasibility Study for Vibracoring at the Carns Archeological Site: Coast Guard Beach, Cape Cod National Seashore, MA*, Technical Report No. 11-SRG. University of Rhode Island / National Park Service Coastal Research Center Final Report, 25 p.
- Graves, Scot M., 1990, *Morphotomology of Rhode Island Barrier Shores: A Method of Distinguishing Between Beach and Dune/Barrier Components within a 29 Year Record of Shore Zone Profile Data, with Special Reference to the Role of the Beach as a Buffer and Modulator of Erosional Coastline Retreat*, (Unpublished Masters Thesis): Graduate School of Oceanography - University of Rhode Island, Narragansett, RI, 358 p.
- Boothroyd, J.C., C.W. Galagan, and S.M. Graves, 1988. *Advance and retreat of the southern Rhode Island shoreline, 1939-1985: including 1985 berm volume*, Technical Report No. 7-SRG. University of Rhode Island Sea Grant Final Report, Contract No. NA-85AA-D-SG094, Project R/CR-871, 92 p.
- Boothroyd, J.C., S.M. Graves, and C.W. Galagan , 1988. *The Rhode Island long-term beach profile network: 1986-1988 data*, Technical Report No. 8-SRG. University of Rhode Island Sea Grant Final Report, Contract No. NA-85AA-D-SG094, Project R/CR-871, 146 p.
- Graves, S.M., 1988, *Documentation for computer programs used in the analysis of the Long-term beach profile network*, Technical Report No. 9-SRG. University of Rhode Island Sea Grant Final Report, Contract No. NA-85AA-D-SG094, Project R/CR-871, 41 p.
- Graves, S.M., 1987, *Elevation Profiling of Eight South Rhode Island Barrier Beaches, Sept. '86 to Aug. '87*, in: McMaster, R.L. (compiler), *Transit Surveying of Selected Block Island Sound Beaches in Washington County, RI*, (unpubl. Annual Reports), Coastal Resources Center, URI, Kingston, RI.
- Graves, S.M., 1986, *Elevation Profiling of Eight South Rhode Island Barrier Beaches, Sept. '85 to Aug. '86*, in: McMaster, R.L. (compiler), *Transit Surveying of Selected Block Island Sound Beaches in Washington County, RI*, (unpubl. Annual Reports), Coastal Resources Center, URI, Kingston, RI.

Other: (reports, proceedings, papers, citations and references, performances)

- Odell, M.R.L., Kennedy, T.J. and Graves, S.M., 1998. *The Idaho GLOBE Franchise Model*. Globe Train the Trainers Conference, Missoula, Montana.
- Graves, S., 1995, *CoMap Project: Community Mapping, Cooperative Learning*, presented to the Ketchum City Council, Ketchum, ID
- Jordan, R. and Graves, S., 1994, *Teens Restoring Earth's Environment*, invited presentation at the Belize National Summit on Teen and Adolescent Challenges, Belize City, Belize.

Refereed/Adjudicated (currently scheduled or submitted): (provide citations)

- Graves, S.M. and Klett, M.D., _____, *A mentoring Model for Interactive Online Learning in Support of a Technology Innovation Challenge Grant*, in final preparation for submission.
- Graves, S.M., _____, *Elicitation and Development in Threaded Discussions: an investigation of questioning & elicitation strategies among facilitators of online discussions and their attendant participant/ student responses*. To be submitted to *Journal of Interactive Online Learning*.

Presentations and Other Creative Activities: (slide sets, web pages, video productions, provide date, location)

Contributing Author:

- GLOBE: *Sample Earth as a System Unit Plan* – in GLOBE 2003 Implementation Guide for Teachers, Introduction pg 73-p76. Global Learning and Observations to Benefit the Environment; *an International Environmental Education and Science Partnership*, www.globe.gov.
- GLOBE: *Sample Land Cover Biology Unit Plan* – in GLOBE 2003 Implementation Guide for Teachers, Introduction pg 77-p81 with illustrations. Global Learning and Observations to Benefit the Environment; *an International Environmental Education and Science Partnership*, www.globe.gov.
- E2: Environment and Education; *6 volume set including separate teacher-guide and student editions: General Resources, Habitat and Biodiversity, Waste Reduction, Chemicals, Choosing Wisely, Food Choices, Energy Conservation, Water Conservation*, Student Edition, Dale Seymore Publications, Menlo Park, CA., 1997.

Scientific Illustrations:

Full page 3D illustrations in: Ashley, G.M., Boothroyd, J.C., and Borns, H.W., Jr., 1991, Sedimentology of Late Pleistocene (Laurentide) deglacial-phase deposits, eastern Maine: an example of a temperate marine, grounded ice-sheet margin, in Anderson, J.B., and Ashley, G.M., editors., Glacial marine sedimentation - paleoclimatic significance: Geological Society of America Special Paper, p. 107-125.

Publicity Articles:

Lewis and Clark Rediscovery Project, College of Education, University of Idaho, 1999-02
 Life-Long Learning: Lewis & Clark Rediscovery Project, University of Idaho, 2000-02
 CoMap Project, Hemingway Learning Institute, Ketchum, ID, 1996
 T.R.E.E. Inc. Teens Restoring Earth's Environment, Boise, ID, 1994-96
 EarthTime Project, Global Environment Project Institute, 1993.

Newsletter Editor:

Corps Crier: Lewis & Clark Rediscovery Project, 2000-present
 Phi Delta Kappa. *Phi Delta Kappa Local Chapter Newsletter*, 1998-99.

Computer Type-Set and Layout Brochures and Posters:

Lewis & Clark Rediscovery Project, 2000-present
 NASA NOVA Project, 2000-01
 Idaho GLOBE Program Science Protocols and activities booklet, 1999
 EarthTime Project, Global Environment Project Institute / Tides Foundation, 1991-93

Grants and Contracts Awarded: (provide principal and co investigators, title, sponsor, funding dates, amount)

- Principal Investigator, Instructional Designer, NASA – NOVA Program for Connecticut, inquiry-based, student-centered environmental and earth sciences course design, SCSU / Gateway College, \$30,000 (1.5yr).
- SCSU UTPP Proposal: Environmental Systems Inquiry, a course for environmental studies and elementary education majors, \$2,000 (1 yr).
- Co-Director/PI, Lewis-Clark 2000, Technology Challenge Grant, Potlatch School District/UI/COTF funded by the US Department of Education, \$7,500,000, 1999-present.
- Co-Investigator, Life-Long Learning Project (L³), NASA Congressional Grant, University of Idaho, College of Education, Moscow, ID, \$2,000,000, 1999-present.
- Co-Investigator, Idaho Virtual Campus-Extension, SBOE, \$ 148,000. 1998.
- Co-Investigator, FLES, State Board of Education Grants, Moscow School District, \$10,000. 1998.
- Co Investigator, Idaho GLOBE/MTPE. Idaho Space Grant Consortium, \$5,000. 1998.
- Co-Investigator, Idaho Virtual Campus, UI/ISU/ISGC SBOE Technology Proposal for faculty enhancement and on-line course development. \$650,000. 1997-2000.
- Co-Investigator, Model for the 21st Century: Pine Project, PDK Service Project, \$1,000.
- Co-Investigator, NASA COTF/ISGC agreement to pilot on-line professional development course, \$9,200. 1997.
- Co-Investigator, Idaho GLOBE/MTPE. Idaho Space Grant Consortium, \$5,000. 1997.
- Co-Investigator, Constructing Physics Understanding (CPU) Project, Subcontract Grant NSF/SDSU. \$17,000. 1997
- Co-Investigator, Project NOVA: Creating Change in Higher Education, Subcontract NASA/UA, \$289,000 (\$2,516,224.). 1997-99.
- Co-Investigator, CPU Constructing Physics Understanding, Eisenhower Grant. \$33,000. 1997.
- Co-Investigator, GLOBE Franchise Agreement for teacher enhancement. Joint project with BSU And CSI 1996.
- Co-Investigator, Idaho Virtual Classroom, UI/ISU/ISGC SBOE Technology Grant for faculty enhancement and on-line course development. \$153,000. 1996.
- Co-Investigator, NASA Project NOVA: Integrated Science, Technology, and Mathematics, NASA/UA Subcontract Proposal. \$29,000. 1996.
- Principal Investigator, US WEST / Hemingway Learning Institute, Co-Map Project, \$5,000, 1996.
- Co-Principal Investigator, Senior Instructional Designer, GEPI/Tides Foundation, The EarthTime Project, \$150,000/yr (3 yrs).

Honors and Awards:

- 2003: Special Achievement in GIS Serving Our World, UMAC EdPARC-ID, presented at the 2003 ESRI International Users Conference, San Diego, CA.
- 2000: Harry Hubbard Founders Award, National Lewis and Clark Bicentennial Council, presented to members of the Board of Directors of the Clearwater – Snake Lewis and Clark Bicentennial Committee.
- 1999-present, GLOBE Program Honors, Global Learning & Observations to Benefit the Environment.
- 1996-present, NASA NOVA Fellowship, Idaho Space Grant Consortium, College of Engineering, University of Idaho.
- 1988-89, Rhode Island Sea Grant Fellowship, Department of Geology and Graduate School of Oceanography, University of Rhode Island, Narragansett RI.
- 1984: Special Achievement Award: USGS Marine Geology, Menlo Park, CA
- 1984: Honorary *BlueNose*: Explorer in the Realm of the Arctic Circle, NOAA.
- 1979-'81: Dean's List: Santa Barbara City College

SERVICE:**Major Committee Assignments:** (National, State, District, County, University, College, Departmental and dates)

- 2006-present, NCATE / NSTA Science Teacher Education Accreditation Review Board, 2006-present
- 2006-present, Journal Editorial Board, National Association of Geoscience Teaching- *Journal of Geoscience Education*
- 2004-present, Journal Editorial Board, Association for the Advancement of Computing in Education- *Journal of Computing in Mathematics and Science*
- 2001-present, National Center for Online Learning Research- *Journal of Interactive Online Learning*.
- 2001-2005, Editorial Board, Northern Rocky Mountain Educational Research Association- *Researcher Online Journal*
- 2001-03, Educational Programs Judge: *ED-Tech Quest*, University of Idaho, College of Education
- 2000, Educational Programs Judge: *Global Information Infrastructure Awards*
- 2000, *Search Committee Member*: Division Director: Teaching, Learning & Leadership, College of Education, University of Idaho

Professional and Scholarly Organizations (memberships, committee assignments, editorial services, offices held, dates)

- Board of Directors, Northern Rocky Mountain Educational Research Association. 2002-03.
- Board of Directors, Idaho Science Teachers' Association, 2002.-03

Outreach Service: (popular press, interview articles, newspaper articles, workshops-seminars-tours, impact statements)*Outdoor Education:*

- Advisory Board, West Haven, Sandy Point "Important Bird Area" Conservation, 2007-present
- Co-Strategic Development of an outdoor environmental classroom at Cove River Park and Archaeological Site, West Haven, CT. 2005-present
- Co-Development/Facilitation of an outdoor environmental classroom at University of Idaho McCall extension and summer campus, McCall, ID 2001.
- Development of an outdoor environmental classroom at McDonald School, Moscow, ID. '97-'98.
- Development & Instruction of a summer K-6 environmental camp at Hemingway Learning Institute, Ketchum, Idaho. 1996.
- Development & Instruction of a high school summer environmental camp for TREE, Inc., Boise, Idaho. 1994.

Family Science Night: Supervised Preservice teachers and facilitated inquiry activities.

- 1996, West Park Elementary School, Moscow, Idaho.
- 1996, MacDonald Elementary School, Moscow, Idaho.
- 1996, Lena Whitmore School, Moscow, Idaho.
- 1998, Garfield Elementary School, Garfield, Washington.

Community Service: (non-academic unrelated to employment)

- Science Fair Judge, New Haven School District, Spring 2007
- Board of Directors Chair & President, Hemingway Learning Institute, Moscow, ID, 1996-02
- Board of Directors, Palouse Discovery Science Center. 2001-present.
- Board of Directors, Clearwater – Snake Lewis and Clark Bicentennial Council. 2002.

PROFESSIONAL DEVELOPMENT: (workshops and seminars attended)**Teaching:**

TAT: Training for All Teachers Program, SCSU School of Education, Summer 2005
 ArcView/GIS, ESRI Professional Trainers workshop, Seattle, WA April 2003
 National Science Teachers Association NSTA Annual Conference; Philadelphia, PA (exhibitor) 2003
 National Science Teachers Association NSTA Annual Conference; San Diego, CA (exhibitor) 2002
 Idaho Science Teachers Association ISTA, Annual Conference, Idaho Falls, Idaho, (exhibitor) 2003
 ISTA, Annual Conference, Twin Falls, Idaho, (exhibitor) 2002
 ISTA, Annual Conference, Boise, Idaho, (exhibitor) 2001
 ISTA, Annual Conference, Boise, Idaho, (exhibitor) 2000
 ISTA, Annual Conference, Boise, Idaho, (exhibitor) 1999
 ISTA, Annual Conference, Boise, Idaho, (exhibitor) 1998
 National Earth Science Teachers Conference NEST, Las Vegas, Nevada, (exhibitor) 1998
 NSTA National Convention, Las Vegas, Nevada, (exhibitor) 1998
 NSTA National Convention, New Orleans, Louisiana (exhibitor) 1997
 Idaho Science Teachers Association, Annual Conference, Boise, Idaho, (exhibitor) 1997
 NASA Education Program Exhibitor, NSTA Convention, New Orleans, Louisiana, (exhibitor) 1997
 Idaho Society for Energy and Environment, Annual Conference, Boise, 1996, McCall, 1997

Scholarship:

Northern Rocky Mountain Educational Research Association NRMERA Annual conference, Jackson, WY,
 2003 (Executive Board Member, Researcher Online Journal Technical Editor and Webmaster)
 National Educational Computing Council NECC, Annual Conference, Seattle, WA, 2003 (exhibitor)
 International Society for Technology in Education, ISTE Annual Conference, Portland, OR, 2000 (exhibitor)
 Northern Rocky Mountain Educational Research Association NRMERA Annual conference, Estes Park, CO,
 2002 (Executive Board Member and Webmaster)
 International Society for Technology in Education, ISTE Annual Conference, Portland, OR, 2000
 Association for the Advancement of Computers in Education, AACE Annual Conference, Honolulu, HI,
 (invited exhibitor) 1999
 Northwest Regional Workforce Development Conference, Missoula, Montana, 1999
 AACE Annual Conference, Seattle, WA, (presenter) 1998
 Association for Educators and Teachers in Science AETS, Annual Meeting, Austin, Texas, 1999
 Idaho Space Grant Conference, Moscow, Idaho, 1996; McCall, Idaho, (exhibitor) 1997
 Northwest Regional Workforce Development Conference, Missoula, Montana, 1997
 Geological Society of America, GSA Northeastern/Southeastern Annual meeting, Baltimore, MD, 1991
 Association for Computing Machinery, (SIGGRAPH), Boston, MA, 1989
 Geological Society of America, Northeastern Annual meeting, NJ, 1989
 Geological Society of America, Northeastern Annual meeting, Portland, ME, 1988
 Society of Economic Paleontologists and Mineralogists, Annual Meeting, San Jose, 1987

Outreach:

Rotary Club of West Haven, Cove River Site Presentation, West Haven, CT, (invited presenter) 2007
 Amity High School Science Research Club, Woodbridge, CT (invited presenter) 2006
 Second Annual Idaho Indian Education Youth conference, Lewiston, ID, (invited presenter) 2003
 National Lewis & Clark Bicentennial Council, Kick-off, Charlottesville, WV, 2003
 National Lewis & Clark Bicentennial Council, Annual Meeting, Lewiston, ID, (invited presenter) 2002
 Upper Midwest Aerospace Consortium UMAC: EDPARC annual conference, "Agricultural Technologies
 for Rural Development." Grand Forks, North Dakota, 2002
 National Lewis & Clark Bicentennial Council, Annual Meeting, Kansas City, MO, (invited presenter) 2000
 NLCBC, Annual Meeting, St. Charles, MO, 1999 (exhibitor)
 ECHO Project: Columbia Education Center, Fulbright educational research in Finland, Estonia, Russia, 1999
 Using the Third International Mathematics and Science Study (TIMSS) to improve science
 education in Idaho. State Department of Education, Boise, Idaho 1998
 Western States Workforce Development Conference, Missoula, Montana, 1998
 GLOBE Franchise Facilitators Training, Biosphere II, Phoenix, Arizona, 1996; Missoula, MT, 1998
 Northwest Regional TIMSS Conference, Portland, Oregon, 1997

Professional References for Dr. Scott M. Graves Ph.D.

Michael R.L. Odell, Ph.D. Celia and Sam Roosth Chair in Education Professor, STEM Education, University of Texas at Tyler College of Education and Psychology, 3900 University Blvd. Tyler, TX 75799	903/566-7149
Mitchell Dean Klett, Ph.D. Assistant. Professor Earth Science/Educational Technology Northern Michigan University, College of Professional Studies School of Education, Marquette MI 49855	906/227-1641
Teresa Kennedy, Ph.D. Deputy Director, GLOBE Program University Corporation for Atmospheric Research, 3300 Mitchell Lane, Rm. 2104 Boulder, CO 80301	303/497-2620
Dale Gentry, Ph.D. Professor Emeritus, Education Former Dean, College of Education University of Idaho, Moscow, ID 83844-3080	208/885-6773
David N. McIlroy, Ph.D. Associate. Professor Microelectronics Research and Communications Institute, University of Idaho, Moscow, ID 83844-0903	208/885-6809
Elizabeth Reynolds, Ed.D Associate Professor Educational Psychology, Teacher Education, College of Education, University of Idaho, Moscow, ID 83844-3082	208/885-7703
John Davis, Ph.D Associate Professor, co-Director, IMITS Educational Technology, Teacher Education, College of Education, University of Idaho, Moscow, ID 83844-3082	208/885-7703
Gwendolyn Kelly, Ph.D Professor Emeritus, Mathematics Education Teacher Education, College of Education, University of Idaho, Moscow, ID 83844-3082	208/885-6586
Dick Jordan, Teacher & Department Chair Timberline High School, Boise, ID 83843	208/384-3142
Jon C. Boothroyd, Ph.D. Professor, Geology Department of Geology University of Rhode Island, Kingston, RI	401/789-3727
J. Christopher Hormel Executive Director, GEPI Global Environment Project Institute Ketchum, Idaho 83340	208/726-3025
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