

Curriculum Vitae: Michael Spiess

Education

- 1997-2003 U.C. Davis / CSU, Fresno
- Ed.D. Degree (Joint Doctoral Program in Educational Leadership), May 2003.
- 1981-1883 California State University, Fresno
- M.S. Degree (Agriculture, Plant Science/Irrigation), December 1983.
- 1977-1979 California State University, Chico
- B.S. Degree (Agriculture Major, with distinction), December 1979.
- 1975-1977 San Joaquin Delta College
- A.A. Degree (Natural Resources Major, with high honors), December 1977.

Experience

Fall 2009-Present California State University, Chico

Professor

Teaching agricultural engineering technology, irrigation, agricultural GIS, and agricultural education

Fall 2003-Spring 2009 California State University, Chico

Associate Professor

Teaching agricultural engineering technology, irrigation, agricultural GIS, and agricultural education

Fall 1997-Spring 2003 California State University, Fresno

Lecturer

Teaching mechanized agriculture, precision agriculture, computer skills and agricultural education resources

July 1999-July 2003 California State University, Fresno

Manager, Agricultural Technology Information Network (ATI-Net)

ATI-Net is an administrative division of the California Agricultural Technology Institute which develops Internet based applications.

1997-Present Peak Consulting

Owner

- Developing web sites and Internet applications for businesses and education.

1991-1997 FAMOUS, LLC

Partner

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- FAMOUS, LLC is the developer of the FAMOUS Agricultural Accounting package installed at 1500 sites in over 35 states (as of 1997).
- FAMOUS is used by growers, packer-shippers, brokers, and wholesalers of produce.

1984-1997 FAMOUS, LLC

Product Manager/Customer Training and Support

- Developed curriculum for customer classes.
- Designed software changes. Planned special projects like integration of automatic faxing into FAMOUS and bar coded pallet/receiving tag systems.
- Developed and maintained the company web site and coordinated all company Internet services.
- Trained customers in the use of the FAMOUS accounting system. Job required advanced knowledge of the PC, Network, and UNIX operating systems and accounting skills.
- Developed support staff training curriculum.

1981-1988 California State University, Fresno

Lecturer (Part-time)

- Taught Agricultural Shop Skills, Rural Electrification, Tractors, Welding, Fabrication, Agricultural Computing, Irrigation System Design, and Surveying.

1981-1984 CSU, Fresno / Center for Irrigation Technology

Research Assistant

- Developed computer data acquisition and control systems. Performed irrigation equipment testing, system design, and programming.

1980-1981 Sierra Joint Union High School

Vo-Ag Instructor

- Grades 9-12, Taught Agricultural mechanics and crops.

1979-1980 Biggs Junior/Senior High School

Vo-Ag Instructor

- Grades 7-12. Taught Agricultural mechanics, woodshop, and construction (R.O.P.) Position involved planning and development of a new school farm.
- F.F.A. co-advisor.

Instruction

Courses Taught

GIS/GPS in Agriculture and Natural Resources Management
Curriculum & Methods in Teaching Agricultural Mechanics

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Agricultural Machine Systems
Irrigation
Introduction to Agricultural Mechanics
Directed Work Experience in Field and Row Crops
Introduction to Precision Agriculture
Introduction to Precision Agriculture for Community College Instructors and Ag Industry (web based with Rollin Strohman and Shrini Upadhyaya)
Introduction to Agricultural Mechanics
Agricultural Tractors
Agricultural Education Resources and Computer Applications
Equipment Operation Safety
Metallurgical Processes
Micro-Computer Applications to Agricultural Business (web enhanced)

Awards

CSU, Chico Exemplary Online Instruction (2008)
AAAE Western Region Service Award (2008)

Professional Growth and Achievement

Publications, Presentations, and Creative Works

Spiess, M. 2008. Simple Tools for Using GPS and GIS in Your Course (peer reviewed poster). American Association for Agricultural Education. 5/2009 Louisville, KY.

Spiess, M. 2008. Simple Tools for Using GPS and GIS in Your Course (peer reviewed poster). Western Region American Association for Agricultural Education. 4/2009 South Lake Tahoe, NV.

Spiess, M. & E. Franklin 2008. How to be a Field Day Hero: 4-H & FFA Tabulation Program for Teachers. National Association of Agricultural Educators 12/2008.

Spiess, M. 2008. Using Google Custom Searches in Your Course. North American Colleges and Teachers of Agriculture Journal. (2009).

Spiess, M. 2008. Tabulating Career Development Events; A Contest Management Approach. The Agricultural Education Magazine May 2008

Spiess, M. 2008. FFA Diversity – Establishing Benchmarks and Tracking Developing Trends (peer reviewed poster). American Association for Agricultural Education. 5/2008 Reno, NV.

Spiess, M. 2008. FFA Diversity – Establishing Benchmarks and Tracking Developing Trends (peer reviewed poster). Western Region American Association for Agricultural Education. Park City, Utah.

Pickard, J. & Spiess, M. 2008. Teacher Perceptions of California Agricultural Mechanics Teacher Preparation (peer reviewed poster). Western Region American Association for Agricultural Education. 4/2008. Park City, Utah.

Horney, M. & Spiess, M. 2008. Mapping Arundo donax in a Northern California Watershed (peer reviewed poster). Society for Range Management. 1/2008.

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Louisville, KY

- Spiess, M. 2008. Release of Version 2.07 of the California Career Development Tabulation program. The update added a configuration wizard to aid users outside of California. The program supports FFA and 4H events. 86 pre-configured contests are now supported for US and Canada. The program features a robust set of data entry options, many reports, and built in quality assurance features.
- Spiess M. & Horney M. 2007. Final Report: Stony Creek Project for Glenn County Resource Conservation District. (33 pages and 6 DVD's of data). 6/2007.
- Spiess, M. 2007. Improving Tracking of Agricultural Teacher Movement (invited poster). American Association for Agricultural Education. 5/2007. Minneapolis, MN.
- Spiess, M. 2007. Improving Tracking of Agricultural Teacher Movement (peer reviewed poster, 1st runner-up). Western Region American Association for Agricultural Education. 4/2007. Cody. WY.
- Spiess, M. 2007. Using Google Custom Searches in Your Course. North American Colleges and Teachers of Agriculture Journal, 51 (4).
- Spiess, M. 2007. Creating SAE and FFA Activity Charts from the FFA Roster. (poster presentation) California Agriculture Teachers' Association. 6/2007. San Luis Obispo, CA.
- Spiess, M. 2007. California Agricultural Teachers' Essential Guide to Safety (poster presentation). California Agriculture Teachers' Association. 6/2007. San Luis Obispo, CA.
- Spiess, M. 2007. Using Google Searches in the Classroom (poster presentation). California Agriculture Teachers' Association. 6/2007. San Luis Obispo, CA.
- Spiess, M. 2007. California Agricultural Teachers' Essential Guide to Safety. 124 page reference available online at: <http://www.agedweb.org>
- Spiess, M. 2007. Release of Version 2.06 of the California Career Development Tabulation program. The program supports FFA and 4H events and is use in the US and Canada. The program features a robust set of data entry options, many reports, and built in quality assurance features.
- Spiess, M., Franklin, E. 2006. Tabulating Agricultural Mechanics Contests in Real-Time with Real Results -- A Contest Management Approach. Peer reviewed poster presented at the National Agricultural Mechanics Professional Development Blue Ribbon Session in Indianapolis, IN. 10/2006.
- Spiess, M. 2006. Update of the R-2 Software (an online data collection system) to collect data on FFA program completers. The software is used by all California secondary agricultural education programs. The software automatically selects eligible students for follow-up and provides collected data for the California Department of Education staff.
- Spiess, M. 2006. Release of Version 2.0 of the California Career Development Tabulation program. The program supports FFA and 4H events and is use in the US and Canada. The program features a robust set of data entry options, many reports, and built in quality assurance features.

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- Spiess, M. 2006. Career Development Event Tabulations Program 2.0: Flexibility is the Key to Success. (peer reviewed poster) 4/2006. Boise, ID.
- Reid, K., Spiess, M. 2006. Effects of Student Participation in Agricultural Education on Standardized Testing Scores (peer reviewed poster). Western Region American Association for Agricultural Education. 4/2006. Boise, ID.
- Spiess, M., Horney, M. 2006. Developing Geospatial Assessment and Analysis Skills. An invited presentation at the Ag GIS Education Symposium in Pismo Beach, CA. The symposium was a national meeting of teachers and extension agents involved in agricultural GIS education sponsored by a USDA grant. 3/2006.
- Spiess, M. 2005. Release of Version 1.6 of the California Career Development Tabulation program. The program was updated for changes in the CATA Curricular Code.
- Spiess M. & Horney, M. 2005. Remote Sensing on Stony Creek. An invited workshop at the California IPC conference. 10/2005. Chico, CA
- Spiess, M. 2005. Got Data? Using Online Surveys to Collect Teacher Data (peer reviewed poster). Western Region American Association for Agricultural Education. 4/ 2005. Prescott, AZ.
- Spiess, M., Owen, J. 2005. Agriculture Teacher Use of the CalAgEd.org Website (peer reviewed poster). Western Region American Association for Agricultural Education. 4/2005. Prescott, AZ.
- Spiess, M. 2005. Tool ID Manual for Agricultural Mechanics Career Development Event. Developed an updated tool identification reference for the California contest. Reference is published in electronic form for use by high school teachers. See: <http://www.csuchicoag.org/AgMech> Manuel is available as a PDF document and as an interactive application.
- Spiess, M. 2004. Release of Version 1.0 of the California Career Development Tabulation program. The program supports 32 different events for California FFA. The program features a robust set of data entry options, many reports, and built in quality assurance features.
- Presentation on Variable Rate Technology at the Field Crops Seminar (ATRC, 2004).
- Spiess, M. 2004. Update of the R-2 and FFA Roster software (an online data collection system) to add additional self-service reporting for the state staff. The software is used by all California secondary agricultural education programs. The software is used to annually collect data on 330 programs, 690 teachers, and 65,000 FFA members in California.
- Spiess, M. 2004. Release of version 1.0 of the California FFA Electronic Record Book. Developed with VBA and implemented within MS Excel the record book provides a protected version of the paper FFA record book and is in used in FFA programs throughout California.
- Trexler, C., Spiess M. 2004. California and Its New Teachers: Prisms Through Which to View the Future of Agricultural Education. National Agricultural Education Research Conference (NAERC), St. Louis, MO (peer reviewed paper).

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- Spiess, M. 2004. On-line Program Planning for Students and Advisors. American Association of Agricultural Educators. Honolulu, HI. (peer reviewed poster)
- Cassel, S, Zoldoske, D., Spiess, M. 2003. Assessing Spatial and Temporal Variability of Soil Salinity of Farms Implementing Drainage Management Practices. California Agricultural Technology Institute. Funded by the California Department of Water Resources.
- Spiess, M. 2003. A Pilot Study of Student Use of Course Web Sites in a Web Course Delivery System. JDPEL Research Symposium. Fresno, CA. (invited)
- Spiess, M. 2003. Online Data Collection of Secondary Agricultural Education Data. Central California Research Symposium. Fresno, CA.
- Spiess, M. 2003. Collecting FFA Roster and Teacher Demographic Data On-line. American Association of Agricultural Educators. Portland, OR. (peer reviewed poster)
- Spiess, M., Moffit, K. 2003. GIS for Faculty and Student Research. Presented to the annual CETL Conference at California State University, Fresno.
- Spiess, M., Rocca, S. 2003. Developing an On-line Student Portfolio System. NAREC. Las Vegas, NV. (invited)
- Spiess, M. 2002. Grant from CATA to develop Access based FFA contest tabulations programs that will support bar coded contest materials. \$10,000 (2002-2003)
- Spiess, M. 2002. Grant from Tech-Prep to develop on-line portfolio system for California secondary and community college agriculture programs. \$7500 (2002-2003)
- Spiess, M. 2002. Development and presentation of a GIS Unit for the Central Valley Science Leadership Institute (Fresno). Included CD-ROM based exercises and sample data for K-12 teachers.
- Spiess, M., Rocca, S. 2002. Developing an On-line Student Portfolio System. Western Region AAAE. Spokane, Washington.
- Spiess, M., Rocca, S. 2001. Developing an On-line Student Portfolio System. Western Teaching Symposium. Honolulu, HI.
- Spiess, M. 2001. Using Remote Sensing for Crop Management. Presented at GIS Day, California State University Fresno.
- Spiess, M. 2001. Developing an On-line Student Portfolio System. JDPEL Symposium. Fresno, CA.
- Spiess, M., Rocca, S. 2001. Developing an On-line Student Portfolio System. Central California Conference on Assessing Student Learning. Fresno, CA.
- Spiess, M. 2001. Computer Use by California Agricultural Teachers. California Agricultural Technology Institute, Fresno, CA. Spring 2001. CATI Publication #010501
- Spiess, M. 2001. Computer Use by California Agricultural Teachers. American Association for Agricultural Education Conference. Carmel, CA
- Spiess, M. 2001. Searching the Web for Ag Safety Materials and Using the CalAgSafety Web Site. Ag Safe Conference. San Luis Obispo, CA

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- Spiess, M. 2000. Using GIS in Precision Agriculture. Presented at GIS Day, California State University Fresno.
- Spiess, M. 2000. An Introduction to Precision Agriculture Technologies. Presented at the California Plant and Soil Conference. Stockton, California.
- Spiess, M. 1999. GIS Use in Precision Agriculture. Presented at GIS Day, California State University Fresno.
- Spiess, M. 1999. GIS Use for Land Conservation. Presented at GIS Day, California State University Fresno.
- Spiess, M. & Moffit, K. 1999. GIS Across the Curriculum. Presented to the annual CETL Conference at California State University, Fresno.

Grants and Research

- Spiess, M. 2007. Bureau of Reclamation Water Conservation Grant (\$141,000) to expand existing SCADA demonstration facilities and outreach activities to the North State water districts.
- Spiess, M., Horney, M. 2005. Evaluation of ERSAR Plant Spectral Analysis Procedure for Sub-Watershed scale mapping of the exotic invasive weed, *Arundo donax*. (\$190,000) Funded by ARI and Glen County RCD (CalFed).
- Spiess, M., Nelson, C. 2005 Sacramento Valley Water Management GIS (\$50,000). This ARI project with matching funds from a Bureau of Reclamation Water Conservation Grant will develop and test model GIS systems for water districts.
- Spiess, M. 2004. Farm Worker Transportation Safety grant (ARI) to develop web based materials. (\$20,000) This grant is in cooperation with CSU, Fresno Center for Agricultural Business and is part of an (\$500,000) project to improve transportation safety for farm workers in California.
- Spiess, M. 2004. Bureau of Reclamation Water Conservation Grant (\$300,000) to expand existing SCADA demonstration facilities and outreach activities to the North State water districts.
- Arthur, J., Varahamurti, R., Spiess, M. 2004. Autonomous Farming Using Intelligent Ground Vehicles (ARI). The grant is to research the feasibility of fully autonomous vehicles for use in precision farming. (\$90,000)
- Spiess, M. 2004. Continued funding of CalAgEd web site. (\$12,000)
- Spiess, M. 2003-2005. Grant to Development of CDE tabulations programs for California state finals. (\$20,000)
- Spiess, M. 2003. Continued funding of CalAgEd web site. (\$15,000)
- Spiess, M. 2002. Grant from Tech-Prep (\$7500) to develop on-line testing system for subject area tests to be used in secondary agriculture programs.
- Hanna, M. Spiess, M. 2001 Developing an On-line Centralized Childcare Eligibility List for Fresno County. State grant in cooperation with Fresno County (\$116,000).
- Spiess, M. 2000. ACTION - Developing a Secure On-line Agricultural Crime Tracking System with Real-Time GIS Analysis. Grant from Tulare County (\$90,000).
- Spiess, M. 2000. Development of an Agricultural Safety Web Site. ARI Grant

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(\$37,000).

- Spiess, M. Yen, M., Gu, S. 2000. Feasibility Study of Remote Sensing as an Economically Viable Vineyard Management Practice. ARI Grant (\$80,000).
- Strohman, R., Spiess, M, 2000. Development of Precision Agricultural Curriculum for California Agricultural Leaders. ARI Grant (\$240,000).
- Strohman, R., Spiess, M, 1999. Development of Precision Agricultural Curriculum. USDA Challenge Grant (\$240,000).
- Spiess, M. 1998-. Development of CalAgEd.org web site. A resource web site for California vocational agriculture teachers. Funded by the California Department of Education (\$10,000).
- Spiess, M. GIS use in Agriculture. 1998-1999. A project to demonstrate the use of GIS and geo-spatial technology in California agriculture. Funded by California Agricultural Technology Institute/ATI Net (\$24,000).
- Spiess, M. & Zoldoske, D. et. al. 1997-1998. Development of Wateright, a weather based irrigation scheduling web site. Funding by US Bureau of Reclamation and the Center for Irrigation Technology

Other Professional Activities and Projects

- Appointed to the California Teacher Credentialing Commission Agriculture Specialist Credential Review Panel. (2007-present)
- Created an online system (software) for submission, review, and scoring of posters for the American Association for Agricultural Education (2006-present)
- Developed a tabulations program for Career Development Events (CDE). Version 2.07 was released in 1/2008. The program is currently used for 4H, FFA, and Collegiate events at all major events in California as well as in other states and Canada. (2003- present)
- Appointed to the California Teacher Credentialing Commission California SMAP Panel (Agriculture). The panel develops materials for the CSET test and program standards for the single subject agriculture credential. (2004-2005)
- Created an online accounting application for the student crops projects. The application allows students and instructors to track project activity and enter financial information. Financial analysis and other reporting is provided in real time and a historical record of student projects is created as a resource for future students. The system allows the instructor and farm staff to email students and post their observations to the students' project record. (2004-2005)
- Reviewed the online course: Agriculture Applications of Remote Sensing for the Institute for Advanced Education in Geospatial Sciences at Mississippi State. (2005)
- Created an online application to track contest information for FFA contest advisors. Includes requests for facilities and automatic updating of the contest web site. Data is summarized for uses such as ordering tables and chairs and compilation of contest information for the results book. The system automatically updates

- public web page for each contest. (2004)
- Creation of a web based application to aid students in planning their class schedules and help advisors track their progress. Students create an academic plan using built in templates. Advisor work load is reduced since the system provides on-line review of the students' progress toward the degree and/or credential. Advisors can also use the system to keep a record of the advising process and to send emails to advisees. (2002-2004).
- Developed an on-line system for tracking curriculum changes throughout the University. The system tracks progress throughout the committee review process, prints agenda, notifies interested parties by email of status changes. (2002)
- Developed a GIS resource CD for K-12 science teachers as part of the Central Valley Science Leadership Institute. (2002)
- Developed an on-line registration system (software) for FFA contests. The system tracks registration and provides administrative options to set fees and other attributes of the contests. (2002-2003.) Note: This system is now part of the CalAgEd web site and is used by six colleges and universities for eight state wide events and for registration of the Greenhand conferences (California FFA).
- Creation of a web site and on-line data collection system for community development (Malaga, CA). Data collection system is a secure site that generates data for program evaluation. Part of a Prop 10 grant. (2001-2003)
- Developed an on-line student portfolio system for use by students and departmental assessment. (2000-2002)
- Developed a secondary level curriculum for precision agriculture. (2001)
- Developed computerized tabulations programs for Agricultural Mechanics, Farm Power, Small Engines, Floriculture, Citrus, Vine Pruning, Cotton, Vegetable Crops, and Tree Pruning FFA contests. (2000-2002)
- Developed database application to track registration and results for FFA contests. (2000-2001)
- Developed an on-line slide show system for presenting identification or other photographs. Currently in use in mechanized agriculture instruction. (1999-2000)
- Maintained a GIS database for the CSU, Fresno University Agricultural Laboratory (1998-2003)

Contributions to the University and Community

University Service

- Chair, University Technology Advisory Committee
- Academic Technology Advisory Committee
- College of Agriculture Agricultural Teaching and Research Center Committee.
- College of Agriculture Research Committee.
- College of Agriculture Curriculum Committee, Chair

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- College of Agriculture Web Committee (ad hoc). Chair 2004-2007.
- Superior Ag Committee
- Farm Administrator Search Committee (2008)
- Plant Protection Faculty Search Committee (2008)
- Plant Protection Faculty Search Committee (2006)
- CSU, Fresno Agricultural Literacy Advisory Committee (2000-2003)
- University Web Advisory Committee (CSUF 1998-2003)
- Founding member of the Interdisciplinary Spatial Information Center Committee (CSUF 1998-2003)
- Digital Campus Fellow representing the College of Agricultural Sciences and Technology (CAST) (CSUF 2002-2003)
- College Undergraduate Curriculum Committee & Chair Plant Science Department Curriculum Committee (CSUF 1998-2003)

Other Service

- California Credentialing Commission Agricultural Specialist Credential Reviewer. (2007-present)
- American Association of Agricultural Educators Western Region Poster Committee Chair (2004-present)
- National FFA Ag Mechanics Career Development Event Associate Superintendent (2006-present)
- California Postsecondary Agriculture Articulation Collaborative (CPAAC) CSU Ag Mechanics Chair (2004-present)
- American Association of Agricultural Educators Poster Committee Co-Chair (2007)
- California Credentialing Commission CSET Standards committee member (Agriculture). Committee developed new standards for the Single Subject Agriculture and Agriculture Specialist credentials as well as developing the new CSET test for subject matter competency. (2004-2005)

Awards

- Awarded Honorary State Degree by the California FFA (2006)

Other Interests

- Life member of the California Agricultural Teachers' Association
- Life Member of the American Association of Agricultural Educators
- Life Member of the North American Colleges and Teachers of Agriculture.
- Member of the Irrigation Association
- Director and Treasurer, Northern California Regional Land Trust. (A land trust preserving open and agricultural lands in the Butte, Glenn, and Tehama county)

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area.) (2004-2006)

- Advisor, Collegiate Future Farmers of America student organization CSU, Fresno (1999-2003)
- Member of the Central West High School Agricultural Advisory Committee. (1998-2003)
- Treasurer and Director of the Sierra Foothill Conservancy, which is a land trust that manages over 4500 acres of open land for grazing and habitat conservation. (1996-2003)
- Director, University Hope, a home building project that provides affordable housing. (1997-2003)
- Member of Cave Research Foundation, Life Member of the National Speleological Society. Member Western Cave Conservancy (serve on advisory committee).
- Private Pilot (instrument rated)